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BUHRER, NANCY E. Perceptions of "The Woman Athlete" and "The Woman Coach." (1973) Directed by: Dr. Pearl Berlin. Pp. 156.

The purpose of this study was to investigate the perceived concepts, "woman athlete" and "woman coach," and the comparisons of these concepts, as held by a selected sample of women athletes and women coaches. Subjects participating in the study were 48 women coaches of swimming, tennis, and basketball active member teams in Southern Region II of the Association of Intercollegiate Athletic Women (SIAW). One hundred and twelve women athletes of the above teams participating in North Carolina also took part in the investigation.

Both athletes and coaches responded to semantic differential scales for concepts, "woman athlete" and "woman coach." Athletes also responded to a direct response question asking them to designate the "real" person who came to mind when subjects thought of the term "coach." The relationship, if any, of the "real" person to the athlete was also questioned.

Data were analyzed through four statistical procedures. These included: (1) profile analysis of the four concepts to assess perceptions, (2) computation of the nonparametric sign test to determine significance of difference among factors comprising the scales and the distinctiveness of meaning of concepts, (3) D matrix and D model for comparison

of relationships of concepts to each other and to origin, or the center of semantic space, and (4) tabulation of answers to the direct response question.

Results show that all four concepts are distinct, but at the same time, similar in meaning. For all concepts, the evaluative factor has the most saturation of meaning, followed by activity, and then potency factors. All four concepts follow a middle-of-the-road pattern with no extreme means in scales. In comparison of like factors among concepts, there is no significant difference between the evaluative and between potency factors for concepts held by women athletes. There is a significant difference for the activity factor in this subsample. For concepts held by women coaches, there is no significant difference for the evaluative factor, but there is a difference between the activity and between the potency factors. In comparing concepts, "woman athlete" as perceived by women coaches is the most distinct in meaning, while the "woman coach" as perceived by coaches is the least saturated in meaning. The two concepts of "woman coach" held by athletes and coaches are closest in distance, and thus least different in meaning. The two concepts, "woman athlete" held by coaches and "woman coach" held by athletes are the most different in meaning. The direct response question shows that approximately two thirds of the athletes identify coaches in their personal life experiences when they think of the term, "coach."

PERCEPTIONS OF "THE WOMAN ATHLETE"  
AND "THE WOMAN COACH"

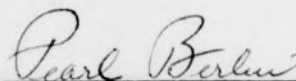
by

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## CHAPTER I

### INTRODUCTION

A current trend in the American culture is the increased number of women participating in sport. What was once considered to be strictly "masculine territory" has now begun to open up for women. In a society with strictly defined masculine and feminine roles, success in athletics truly represented the ultimate goal in "maleness." Here, the male could be convinced of his differences and superiority over women (Beisser, 1967). Society generally considered women with an interest in sport to be dangerous to the feminine image (Harris, 1971b).

However, with the thrust of the women's liberation movement, many of the traditional female stereotypes of the past decades changed. For example, Freiden's (1963) "occupation--housewife" of the early sixties has shifted toward a broader variety of newly accepted roles for women and modifications in the traditional sex stereotypes. Women are now considered by many persons to be competent people, and not merely fragile objects. These women are beginning to aspire to some of the goals that were once strictly masculine (Metheny, 1965).

With the shifting of female stereotypes, factors that once kept women from sport involvement have been

reconsidered. Research, for example, has verified the fact that many of the medical "excuses and fears" are false. Closer examination of women's participation in sport has accompanied the increased popularity of competitive athletics for women and the creation of new records. In effect, what was once unheard of a few decades ago for women, is now commonplace (Klaf's and Lyon, 1973).

There is today, a keen desire for more knowledge about women and sport. In addition, capable leaders in coaching and training are needed. In place of the secondary priority previously given to guiding women's teams, expertise in coaching is sought. It is now important for the woman coach to know how to deal with her athletes in regard to skills, strategies, and personal relations. They must function together successfully in order to achieve the highest possible quality of performance.

This study first reviewed the current literature on the changing feminine image of women in sport and available personality studies of women athletes. Then, it investigated the meaning of the concepts "woman athlete" and "woman coach" as perceived by women athletes and coaches. Because an individual's attitudes and feelings influence how she acts, it was felt that this information could add to the small, but growing body of literature concerning women coaches, women athletes, and their understanding and communication. It was the writer's belief that by

knowing a little more about themselves and each other, coaches and athletes take the first step in achieving the most meaningful sport experience possible.

### Statement of the Problem

This study was concerned with the perceptions of the concepts, "woman athlete" and "woman coach," as held by a selected sample of women athletes and women coaches. Specifically, the investigation sought to answer the following questions:

1. How do women athletes perceive "woman athlete"?
2. How do women athletes perceive "woman coach"?
3. How do women coaches perceive "woman athlete"?
4. How do women coaches perceive "woman coach"?
5. Do the perceptions of these concepts differ for women athletes and women coaches?

"Woman athlete" with "woman coach" by women athletes

"Woman athlete" with "woman coach" by women coaches

6. How do these perceptions compare?

"Woman athlete" by women athletes with  
"woman coach" by women athletes

"Woman athlete" by women athletes with  
"woman athlete" by women coaches

"Woman athlete" by women athletes with  
"woman coach" by women coaches

"Woman coach" by women athletes with  
"woman coach" by women coaches

"Woman athlete" by women coaches with  
 "woman coach" by women coaches

"Woman athlete" by women coaches with  
 "woman coach" by women athletes

7. Which "real" person, if any, do athletes think of when they consider the term "coach"?

### Definition of Terms

Five terms specifically relating to this study were defined in the following way:

1. Concept - "any object of awareness together with its significance or meaning; anything one can think about that can be distinguished from other things (English and English, 1958, pp. 104, 105)."
2. Percept - "a fusion of mental concepts with sensory data at the core (English and English, 1958, pp. 377, 378)."
3. Southern Region II of the Association of Intercollegiate Athletic Women (SIAW) - consists of accredited junior, senior colleges or universities in North Carolina, South Carolina, Virginia, Tennessee, and Kentucky having intercollegiate programs for women and complying to the policies and standards established by the Association of Intercollegiate Athletic Women (AIAW) (Adams and Soladay, 1972, p. 7).

4. Woman Athlete - any college woman who has participated in at least one season of athletic competition on a team sponsored by an SIAW institution.
5. Woman Coach - any woman who instructs or teaches athletes for competition on an SIAW team.

#### Assumptions Underlying the Research

The acceptance of three basic assumptions preceded the interpretation of this study. First, perceptions were considered representable, and therefore measurable by a paper and pencil test. The specific test used was the semantic differential developed by Griffin (1972).

The second assumption concerned the validity of the instrument. Griffin's (1972) semantic differential scales were considered valid in measuring the perceptions of the concepts "woman athlete" and "woman coach."

The final assumption involved the subjects' cooperation in providing data. Athletes' responses were accepted as honestly given.

#### Scope of the Study

This investigation was delimited by three factors: concepts, subjects, and the nature of the investigation. The concepts included in the study were delineated by Griffin's (1972) semantic differential scales. The nature of the instrument itself also served to delimit the study.



The semantic differential interprets the concept of meaning in a general way.

Coaches were selected from basketball, tennis, and swimming teams with active membership in the SIAW. Athletes were further delimited to include those participating on the above teams in North Carolina.

The nature of the investigation was delimited by the time and method of data gathering. Specifically, a mail solicitation and response during the winter and spring of 1973 was utilized.

Thus, the results of the investigation were biased by the geographic region, by the nature of the specific instrument used, by the testing conditions, and in the selection of subjects. No attempt was made, therefore, to generalize the results of the study to all women athletes and coaches.

#### Significance of the Study

The changing role of women in sports has brought a new emphasis to competition. With this focus, the role of women in coaching has also taken on additional importance. One of the perennial concerns of the competitive sport situation is the need for greater understanding between coach and athlete. One approach to studying this understanding is to examine the concepts of the "woman athlete" and "woman coach" as they are held by women who engage in sport,

and then, to compare them. Given that heretofore the concepts of "coach" and "athlete" have not been popularly assigned to individuals who engage in these roles, the meanings held for these terms offer some insights for persons concerned with the growth of women's competitive sports. For the coach, knowledge revealed by the study may be useful in understanding athletes. The coach also can consider these conceptions in comparison with her own. Hopefully, this study will also contribute to players' awarenesses of the role of the coach.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

Several areas of the literature provide background for studying the perceptions of the woman athlete and the woman coach. First, literature about the psychological construct and the self concept relates to this investigation. The changing role of women in society is also a most important consideration. An integral part of this changing role concerns women's participation in sport. Although reported personality studies of women in sport are limited, they also offer points of view which are of concern to the present inquiry.

#### Selected Investigations of the Self Concept Construct

The literature indicates a general relationship between self concepts held by an individual and perceptions held by others. Also, there is evidence of a difference in the self concepts held by women in sport in terms of their involvement in sport and in general social situations.

#### Conceptions of Self and of Others

Reeder, Donohue, and Biblarz (1960) administered self ratings, objective group ratings, and estimated group ratings to military groups to determine the relationship between perceptions of others and self concepts. Results

indicated that the way one perceives the "generalized other" and the responses of others toward him influence self perceptions (Reeder, Donohue, and Biblarz, 1960, p. 158). The perceptions and opinions of others also influenced the subjects, particularly when they had negative self concepts. When the self image was more positive, investigators felt that other variables helped to determine self conceptions.

Videbeck (1960) investigated the influence of positive and negative evaluations of others on the self conceptions of women and men subjects in poetry reading. He found that positive evaluations improve self ratings and negative evaluations lower them by a significantly larger amount.

Kipnis (1961) administered a personality description scale to men to investigate the idea that opinions held by subjects of "significant others" influence ones self conception of performance. Results showed that the "significant other" does influence the individual self evaluation. If the "significant other" was a friend, a more positive evaluation was held toward the subject. If the evaluation was negative, the subject either conformed to that evaluation, or ended the friendship.

In an earlier study, Sherwood (1965) also compared self identity ratings with concepts presented by men and women in human relation training groups. Self identity was influenced by what the subjects felt other members of

the group perceived them to be. The extent and importance of the relationship with the peer influenced the perceptions, along with the amount of communication of this perception.

Finally, relating the self concept to self image and ones presentation to others, Becker and Dileo (1967) administered the Marlowe-Crowne Social Desirability Scale, Rokeach Dogmatism Scale, and Worchel's Self Activity Inventory to men and women college students to study positive social images and personal images in relation to ones presentation to others. It was found that women show a greater need for acceptance by others while men show a greater need for acceptance of self. Women, in turn, have a greater desire to present a positive social image while men are concerned with positive personal images (Becker and Dileo, 1967, p. 291).

#### Studies of Self Concept Involving Physical Activity Considerations

Maehr, Mensing, and Nafzger (1962) studied the self concepts in relation to approval of significant others of high school boys in physical education. Results indicated that self concepts increase or decrease as the evaluation of the "significant other" correspondingly increases or decreases. In results different from Videbeck (1960), these investigators did not find that negative evaluations cause a greater amount of change than positive evaluations

held by others. Thus, it was concluded that opinions of others are important in the learning of self conceptions. Also, it was suggested that these self ratings become incorporated into the total self conception.

Harris (1971a) investigated the perceptions of self in social and competitive situations. Subjects were college women athletes participating in individual sport teams. The Gough Adjective Check List was used to assess perceptions. Results indicated that these athletes perceive themselves to be similar to the general population in the feminine role in social situations. However, in competitive situations, athletes perceive themselves to be more dominant, aggressive, achievement oriented, enduring, and less feminine. There is less need for change, abasement, deference, and affiliation (Harris, 1971a, p. 5). They are also confident, goal centered, individuals, and independent. Thus, there is a difference in perceptions of self in the two situations. In the same paper, Harris also reported results of another study where varsity women athletes and women in the choir indicate similar needs to achieve. It was then concluded that this need to achieve and masculinity are not related (Harris, 1971a, p. 7).

Berlin (1973) reported an investigation of the perceptions of "the ideal woman" and "the woman athlete" as held by college men and women athletes and non-athletes. The Activity Vector Analysis was used to assess the perceptions.

Both concepts were perceived to be different by all groups. "The ideal woman" was "highly sociable, smooth, glib, and friendly . . . (Berlin, 1973, p. 3)." This concept as held by men athletes was similar to the Perfect Person of the Activity Vector Analysis and is described as attractive, kind, interesting, and considerate (Berlin, 1973, p. 7). "The woman athlete" was considered to be " . . . positive, self-initiating, outgoing . . . aggressive tendencies, social confidence, restless . . . (Berlin, 1973, p. 3)." No relationship was found between concepts for women athletes and men non-athletes. A low positive relationship was obtained between concepts of "the ideal woman" and "the woman athlete" by men athletes and a low negative relationship for women non-athletes. "The ideal woman" had a higher activity score than "the woman athlete."

Gilbert and Williamson (1973b) discussed women's achievement in sport as being a threat to "male pride." Gilbert and Williamson felt that the low image of women in sport was due to the fact that men cannot accept defeat by a woman. In one example cited, Ellen Cornish of the United States cross country team was permitted to run with men if she agreed to leave the track before the end of the race to avoid injuring male morales (Gilbert and Williamson, 1973b, pp. 60-73). It was concluded by selected athletes and educators that women in sport develop stronger self identities than those not involved in sport.



### Summary

Literature about self perceptions in relation to the perceived conceptions held by others and to those involved in activity which was reviewed indicates the following trends: (1) perceived conceptions held by "significant others" influence the individual's self concept, (2) self concepts become more or less valued in relation to the perceived evaluation held by "significant others," (3) if the individual holds a negative self concept, he/she is possibly influenced more by these perceptions held by "significant others," (4) women have a greater need for social acceptance than men, (5) self concepts differ for college women athletes in social and in competitive situations, (6) college men and women athletes and non-athletes perceive a difference between concepts of the "ideal woman" and the "woman athlete," and (7) women in sport are seen by some persons to threaten male pride. Several athletes feel that women who engage in sport develop stronger self identities.

### Changing Role of Women

Because human beings have a need for social acceptance and are influenced by the perceived conceptions held by others, the changing role of women in society is an important consideration to this investigation. Literature reviewed on this subject is delimited to sex role stereotypes,

perceptions of "man's ideal woman" in comparison with the "ideal self," and sex role identity.

### Sex Role Stereotypes

Several studies have been reported about sex role stereotypes. While there appears to be evidence that women's role in society is shifting from that of a traditional homemaker to a more modern self-achieving and self-asserting person, the literature indicates that the stereotypes of women-in-the-home still exist.

In the early literature on this subject, Komarovsky (1946) analyzed the autobiographies of college women. Results indicated that these women perceive specific concepts of the sex roles. In particular, sport represents a major part of the masculine role. For example, the subjects felt pressured into losing matches on purpose. Komarovsky concluded that cultural values could not match the pace of the changing society. Thus, the family and boyfriends serve to mediate between decisions of career and housewife for these women.

A previous study by Kitay (1940) demonstrated that women follow the sex role beliefs established by men. In Kitay's study, college men and women both perceive the male to have a more favorable sex role.

Sherriffs and Jarrett (1953) found a slight deviation from these results. The lapse of time between these



investigations may, in part, explain the difference. Similar behaviors were found to exist in both sex roles, thus possibly indicating a decrease in the distinction between the two sex roles.

However, continued research supports the earlier studies cited. McKee and Sherriffs (1957) administered Sarbin's Adjective Check List to men and women college students and also found that perceptions of the male were more favorable than perceptions of the female. In another study, Sherriffs and McKee (1957) administered the same instrument to a different college population and found the same results. Men were described as competent, bold, and straightforward. Women were emotional, social, and neurotic (Sherriffs and McKee, 1957, p. 403).

In the more current literature, similar results to the earlier studies are reported. Rosenkrantz, et al, (1968) investigated self concepts in relation to sex role stereotypes held by college men and women. Similarities between sex stereotypes in general as well as between self concepts were found. Both sexes placed higher value on the masculine stereotype than on the feminine stereotype. It was felt that expectations influence self concepts. The investigators concluded that the trend to define sex stereotypes exists, but they speculated that this will gradually dissolve as people begin to accept the behavior of an individual without regard to sex.

Lunneborg (1970) further investigated sex role stereotypes held by college men and women using Edwards Personal Preference Schedule. Differences in sex stereotypes were basically the same between sexes. Lunneborg concluded that the use of a stereotype to measure masculinity-femininity traits is questionable.

Numerous other studies have been conducted that report more favorable perceptions held by both sexes toward the masculine sex role stereotype. For example, MacBrayer (1960) found these results with college men and women. Also, Broverman, et al. (1970) administered a sex role stereotype questionnaire to men and women clinical psychologists, psychiatrists, and social workers. They found that the masculine stereotypic characteristics are not only more socially favorable, but also healthier. This study suggests that women are forced to fulfill a role that is less favorable and less healthy.

Women's Conceptions of "Ideal Self" and "Man's Ideal Woman"

It appears that the feminine stereotype exists in the form of a passive woman. Several studies indicate that women feel that men expect them to maintain such a role; men, on the other hand, seem to indicate otherwise.

McKee and Sherriffs (1959) administered the Sarbin Adjective Check List to men and women concerning sex role stereotypes and the influences of what one sex believes

the other sex desires. Results showed the influence of the female sex stereotype on women. Women feel that "man's ideal woman" is traditionally more sex typed and passive than the "ideal self." However, they perceive their "real selves" as being traditional. Women choose the positive qualities of both sexes to describe the "ideal man." Men do likewise, although they use fewer female traits. Women perceive the "ideal man" to be similar to the men's perceptions of the way women desire him to be.

This discrepancy between the "ideal self" and "man's ideal woman" has appeared in several other studies. Steinmann (1963) administered the A. B. Fand Feminine Role Rating Inventory to college women and their parents. The daughters perceive themselves and their "ideal selves" to have an equal number of traditional and modern or self achieving elements. The fathers also perceive the feminine role in this manner. However, the daughters and the mothers both perceive "man's ideal woman" to be more traditionally oriented.

Steinmann, Levi, and Fox (1964) investigated college women's perceptions of sex role stereotypes with the Inventory of Female Values. Again a discrepancy was found to exist between the "ideal self," considered to be active and assertive, and the perceived "man's ideal woman," considered to be traditional and passive.

Reece (1964) studied sex role stereotypes held by college men and women using a semantic differential. Reece noted a shift in the stereotypes, although both still existed. Potency and social behavior appeared to be major factors in these stereotypes with concepts of ideal sexes by both sexes holding qualities of tenderness and consideration. The addition of these two traits provided the rationale for a possible shift in the male stereotype, although traditional qualities of aggression and strength still appeared to be part of this stereotype. The feminine stereotype had lower potency scores than the "ideal woman." It was felt that the "ideal woman" increased in potency in being active, not in physical strength. Thus, the image of the female is beginning to appear more self-assertive. This shows a shift from the traditional role.

Steinmann and Fox (1966) administered the Inventory of Female Values to a larger sample of men and women than the previous study by Steinmann, Levi, and Fox (1964). Women perceive their "real selves" to have both traditional and modern elements with a higher self achievement score in the "ideal selves." They again see the "man's ideal woman" in the traditional role. However, they perceive the "ideal woman" to have a balance between the two roles. The investigators attributed this discrepancy to a lack of communication and possible questioning of the responses of

the men. They concluded that the men might be more modern in terms of general concepts and more traditional in regard to more specific concepts.

Steinmann and Fox (1969) enlarged their sample of women to include three North and South American communities. The conflict between the perceptions held by these women of "man's ideal woman" and of "self" held up in this cross cultural inquiry.

Rappaport, Payne, and Steinmann (1970) found a difference in the feminine sex role stereotypes held by married and single women using the Index of Female Values. Both groups perceive "man's ideal woman" to be family oriented. The single group is more family oriented than the married group in terms of concepts of "self" and of the "ideal woman." Thus, while married women have a personal desire to break away from the traditional housewife role in the direction of a role of achievement, they still feel obligated to fulfill the role perceived to be "man's ideal woman."

Lipman-Blumen (1972) found that college women still react to the concept of sex stereotypes. The early cultural pressure reflected in educational goals demonstrated this concept. Subjects who believe in traditional stereotypes still set traditional goals for themselves. Those with more modern views of the female stereotype desire more achievement oriented goals. However, both groups of people have high self acceptance.



Chesler (1971) asserted that the pressure of sex role stereotypes causes women to take the passive conforming role, even in professional areas. Goldberg (1968) found that college women perceive women in general to be inferior to men. It was concluded that the concept of an inferiority status of women in general causes them to be biased in their expectations of women's professional ability. Studies by Keniston and Keniston (1964) and Epstein (1970) further support the lack of opportunity for women to achieve in the professional world of men.

Thus, the literature strongly supports the existence of sex role stereotypes. Although women appear to desire a more modern "ideal self," they still feel that the men want them passive and in the home, i.e., traditional. Bott's (1970) research indicates, however, that changes are taking place, at least, in the perceptions of men and women college students. In her study, Bott administered a collection of parts of several masculinity-femininity scales to subjects to determine their present conception of the feminine role. She was also interested in the relevancy of these earlier masculinity-femininity scales to present day conceptions. Both sexes perceive the "ideal woman" to be "not worried, not often afraid of the dark, not bothered by what other people think of her (Bott, 1970, p. 95). It was concluded that the traditional masculinity-

femininity stereotypes of "indecisive, fearful, dependent, excessively concerned with the expectations of others" has shifted (Bott, 1970, p. 95).

### Sex Role Identity and Sex

Several studies discuss the relationship between sex role identity and sex in terms of social behavior. Currently, the validity of these investigations is being challenged. In a study occurring previous to Bott's (1970), Jenkin and Vroegh (1969) also questioned masculinity-femininity testing in terms of sex role identity.

Becker (1968) administered Worchel's Self Activity Inventory, Marlowe-Crowne Social Desirability Scales, and the Femininity Scales of the California Psychological Inventory to college men and women to investigate the relation between sex role identity and sex. He concluded that subjects of either sex with a higher masculine identification have a greater need for self approval, while subjects with a higher feminine identity have a greater need for social approval. Thus, social and self needs are determined by sex role identity.

Wright and Tuska (1966) administered a self rating semantic differential scale to college women and determined which women had higher masculine or feminine traits. Their work was also concerned with studying the origins of these feelings. They found that feminine women are more



confident, while masculine women are more forceful. It was concluded that the mother-daughter relationship is a factor in femininity and security.

In terms of feminine or masculine women, Jenkin and Vroegh (1969) investigated sex role identity as seen by middle class men and women through the use of an adjective check list and a semantic differential. They concluded that masculinity and feminity each make up independent scales consisting of most and least as the ends of each scale. Thus, the two concepts are not part of the same scale. They concluded that the nature of masculinity and femininity is similar for the two sexes with the most masculine and feminine more socially acceptable than the least masculine and feminine.

#### Summary

The literature reviewed in this section indicates the following concepts: (1) stereotypes still exist, although there is some indication that they are shifting away from the traditional passive homemaker image toward one that is more in line with contemporary roles, (2) the male stereotype and characteristics are considered more favorable, (3) women feel they must behave in the proper feminine role, (4) there is a discrepancy between the "ideal self" and the perceived "man's ideal woman" held by women, (5) individual needs are influenced by sex identity,

and (6) there is some questioning about a single scale to represent the concept masculinity-femininity.

### The Feminine Image in Sport

In relation to the changing role of women in society toward a more modern style, e.g., goal-oriented, liberated, self-assured, women in sport are currently receiving considerable attention. Physical educators, however, have long been concerned with the feminine image of women participating in sport.

Women's sports began to be popularized in America in the late 1800's. However, it was during the period of the 1920's to the 1950's that many negative views, some still held today, had their origins. This was due to the influence of men's sports, medical myths, masculine characteristics associated with sport, and limited knowledges. As research began to shed new light on some of the long-held beliefs, women's active participation in sports increased. However, the ideal aspired to for women athletes has, for years, been associated with the early aristocratic characteristics of skill, beauty, and grace (Cheska, 1970; Gerber, 1971; Holbrook, 1972; Klafs and Lyon, 1973; Lawther, 1972; Metheny, 1965; Sage, 1970).

### Women and Sport: General Concerns

Higdon and Higdon (1967) and later, Sherriff (1971), attribute the growth of women in sport at this time to

the growing independence of women. However, in spite of the popular role that sport plays in the American culture, women still encounter problems finding acceptance.

Malumphy (1971) suggests one reason for the continual lack of athletic desirability in the female stereotype is due to an overcaution by women in trying to avoid many of the men's athletic evils.

Phillips (1971) questions the necessity of women in fulfilling the passive and dependent role assigned to them. Because sport follows the values of society, she infers that its acceptance should change as society does.

Women still appear to enter athletics with the same caution of years ago. Successful women athletes were not emulated in the 1950's, according to Clark and Lantis (1958). In the more current literature, Hart (1971, 1972) states that men and women in sport have always been aware of sex differences. From an early age, the cultural pressure of being a woman and avoiding masculine behavior exists. By the time the girl reaches adolescence, she is forced to make a choice between being an athlete and being a lady. In literature prior to that of Hart, Lambert (1969) urges women to avoid the problems of men and strive for skill and grace in sport.

Mann (1972) also recognizes these fears, but feels that educational leaders recognize the values of an

athletic program for women. Mann further stresses the importance of leadership, communication, and public relations in changing the attitudes held toward women in sport.

Harris (1971b) also discusses the risk to the feminine image encountered by women in sport. Although the myth of masculinization of the feminine image has been proven false, the traditional stereotype still exists. It is wrong for women to be superior to men in skill. She further feels that women in sport either are very sure of their feminine image, or are else portraying the typical "jock" role. She concluded that the greatest problem is the lack of communication between the women athletes and the general population. Because men decide what is feminine, they should first be taught that women can be involved in sport without risk to the feminine image. Then the fears held by the general population that women athletes do not marry must be dissipated. Harris further states that sportswriters could be of great benefit in aiding this cause.

Effects of a negative attitude toward strenuous sports for women appears as women strive to achieve in certain sport areas where they are not normally permitted. One example is track (McFadden, 1968). In this area, one Olympic runner, Doris Brown, has stated that she is responsible for her own training and finances (Gilbert and Williamson, 1973c, p. 90).

Gilbert and Williamson (1973c) point out the obvious discrimination against women in sport in the areas of facilities, salaries, coaches, and scholarships. They further feel that as society supports men's athletics as being healthy, society is also being contradictory in criticizing women's athletics. In one survey of high school women, Gilbert and Williamson found that these athletes could not name ten women athletes "that they most admired." Gilbert and Williamson (1973a) further consider the cultural pressures placed on women athletes provide a double problem. First, the athlete becomes concerned with not meeting society's expectations and then, the athlete becomes concerned with not meeting her own expectations (Gilbert and Williamson, 1973a, p. 47).

It has been suggested that sport might help fulfill some of the same needs in women that it fulfills for men, i.e., aggression and independence. Conceptions of the feminine image have also been helped by the Olympic coverage (Sage, 1970). But it was Albright (1971) who suggested that women must set their own limits of participation. Perhaps this is occurring right now for women. Proponents of improved sport programs for women see changes in a positive direction. The traditional stereotype must still be overcome in many segments of our society.

Research about the feminine image in sport supports the idea that a traditional feminine sex role stereotype



influences sport acceptance for women and by women. Several years ago, Brown (1965) looked at different roles of women in sport as perceived by college men and women with a semantic differential. She found that sex role stereotypes exist in sport. Cheerleaders were closest to the "ideal woman." Players in tennis and swimming were considered to be near the feminine image except in factors of evaluative characteristics. Brown concluded that athletes must improve in evaluative traits in order to change the present stereotype.

More recently, research by Harris (1971a), Griffin (1972), and Berlin (1973) has indicated similar results. Griffin (1972) used a semantic differential to investigate college men's and women's perceptions of female roles, female sport involvement, and influence of socio-cultural characteristics on these perceptions. Results indicated that the traditional stereotypes exist; that is, women athletes and women professors are the least desired roles. They were perceived to be high in potency and activity, and low in evaluative characteristics. Subjects perceived the "ideal woman" to be high in evaluative roles, low in potency roles, and somewhat active. Potency appeared to be the influencing factor of the feminine stereotype (Griffin, 1972, p. 156). The woman athlete was generally perceived to be neutral except in relation to "competitive" and "fast" scale items.

Other literature suggests that a change in this traditional influence on sport acceptance for women is



taking place. Klafs and Lyon (1973) referred to evidence from a 1963 Report of the President's Commission on the Status of Women. This publication argued that women should be able to achieve both the goals of education and of the family concurrently. Klafs and Lyon (1973, p.71) felt the cultural influences were lessening due to the change in the women's role, equality of education, and opportunity. Evidence examined by the Radcliffe Institute (Klafs and Lyon, 1973, p. 73) which assessed the roles of women, reported 73% had developed modern views. Although they recognized two different roles, the traditional and modern, both groups of women achieve their own needs.

#### Approval in Certain Sports

The issue of social approval of women's participation in selected sports has been discussed in the literature by several authors. Metheny (1965) suggests that women are not expected to engage in the following types of sports: body contact, body movement over long distances, sports with heavy objects. However, it is more acceptable for women to engage in sports with light implements, body movement over medium distances, and team sports with barriers separating teams.

Other literature reviewed by Ulrich (1968), Cheska (1970), and Klafs and Lyon (1973) reported that individual sports are more favorably accepted for women

than team sports. Ulrich (1968, p. 73) associated this factor with a sport stratification for men and women. Several research studies further support these generalizations. For example, Harres (1968) found that college women accepted individual sports, specifically swimming and tennis, more than such team sports as volleyball, softball, and basketball.

Higdon and Higdon (1967) analyzed the comments of parents about women's participation in sport and generally concluded that sports displaying rhythm and grace were more acceptable than most team sports. Griffin (1972, pp. 156-157) also found tennis, swimming, bowling, and skiing to be most acceptable for women. An inconsistency between lack of preference by women athletes and sport acceptance occurred in the study and was attributed to the lack of a wide range of suggested sports, lack of personal involvement with those in sports, and possible difference between women athletes and women participating in sport (Griffin, 1972, p. 160).

Malumphy's (1970) study of women golf and tennis players indicated that more than half of the subjects felt sport provides favorable influences to the feminine image. She also found a shift in the number of subjects who attributed sport participation to enhancing their feminine image from one year to the second of her data gathering.

Hart (1972) also found that college women in team sports suggested women pursue tennis or swimming rather than track. All members were interested in convincing

others of their femininity. One example where women convince others of this concept occurs in the women's attire for tennis and golf (Hart, 1971).

#### Opinions Held by Others

Several statements have been made by men concerning the involvement of women in sport. Bowen (1967) stressed the need within men athletes for leadership and communication with the women in sport. He mentioned that men can find acceptance and that women still see the problems. Harris (1971b) discussed the comments of several male coaches and athletes concerning women's sport involvement. Temple (Harris, 1971b) feels that his women's track team should only participate in college. However, Willye White, United States jumper, is quoted as having said that "if a woman is feminine, anything she does is feminine (Harris, 1971b, p. 2)."

Gilbert and Williamson (1973c) discuss the possible indication that men feel competition for women is acceptable to a limited degree. One Olympic weightlifter at Munich acknowledged the traditional home role for women and he felt that women should not be carrying the American flag. However, a different opinion was offered by Jack Griffin, coach of the women's Olympic track team. He feels that women athletes have a high need to excel and that a woman athlete is "not only an exceptional athlete, but an exceptional human being (Gilbert and Williamson, 1973c, p. 98)."

Thus, it appears that men do not totally disfavor women's participation in sports. However, there still appears to be some caution in their full acceptance of women participating in all sports, again indicating the influence of the traditional sex role.

Beyond the above cited generalizations, there is some specific research that has been reported about opinions of women in sport held by individuals who are not themselves involved in athletic endeavors. Harres (1968) used an attitude inventory and questionnaire to investigate college men's and women's opinions of women in competition. Athletes hold more desirable attitudes toward competition than non-athletes. Also, seeing women in sport does not appear to have an influence on these attitudes. Both sexes have similar positive attitudes toward athletic competition for women.

Landers (1970) studied the concept of femininity in a group of physical education majors and in a group of education majors. He used the Minnesota Multiphasic Personality Inventory and the Gough Scale of Psychological Femininity. Overall scores showed physical education majors to be less feminine than education majors. However, in comparing the test items individually, the physical education majors are less feminine only in relative religious beliefs and in being cautious and restrained (Landers, 1970, p. 164).

In a later study, Sherriff (1971) studied the opinions of parents, daughters, and teenage boys toward female

athletic competition. She concluded that parents and teenage boys feel athletes are better fitted to a masculine build. Sherriff also stated that women athletes are not unfeminine in spite of her finding that half of the girls associated masculine traits to women athletes. Boys were divided on peer acceptance of women athletes. They also questioned the necessity of the competitive trait for success in sport. It was concluded that sports with more aggressive traits are not as well suited for women as sports of grace.

The opinions held by men tend to be of particular importance to women athletes concerning sport involvement for several reasons. It has certainly been true in the past that men form the acceptable behavioral guide lines through which women's sex roles function. More specifically, DeBacy, Spaeth, and Busch (1970) felt that men's perceptions of women in athletics are important because of the feminine desire for male approval. DeBacy, Spaeth, and Busch (1970) studied the attitudes of college men physical education majors and nonphysical education majors toward women in sport. The results indicated no difference in attitudes. Both groups have positive attitudes. They also rank sports in order of desirability; swimming and tennis are high and team sports are ranked as less favorable choices for women.



### Summary

In summary, trends discernible from a review of the literature about the feminine image in sport include:

- (1) the traditional feminine sex role still exists in sport, although there is evidence that there is a shift away from this stereotype,
- (2) there are specific sports which are approved for women's participation; preferred sports are of an individual type, with limited team sports also being acceptable,
- (3) those involved in sport are generally more supportive of women's participation than persons who themselves are not involved, and
- (4) men generally accept women's participation in sport.

### The Personality of Women Athletes

Most of the reported research about the personality of athletes involves men as subjects. At present, these studies offer little help in understanding the personality of the woman athlete. With the increasing popularity of sports for women, more information about the personalities of women who engage in athletics will undoubtedly be forthcoming. Of the studies which have been done in this area, three general types have been investigated: (1) women who engage in different sports, (2) women athletes at different ability levels, and (3) comparison of men and women.

### Studies of Women in Different Sports

In an early study by Flemming (1934), the question of the harm of athletics on the female personality was



examined. Athletics at that time were associated with tough, crude men. High school women involved in hockey, basketball, swimming, and tennis participated in the research. Through teachers' ratings of the personalities and leadership characteristics of the subjects, as well as from ratings by the subjects themselves, Flemming found that the only difference between the woman athlete and woman non-athlete concerned the athlete's enjoyment of sports. Collectively, these women athletes had pleasant personalities and leadership traits. They were described as honest, interesting, helpful, beautiful, and good sports.

Malumphy (1970) reported data from a partially completed four year investigation about the personalities of golfers and tennis players. Athletes who competed in national intercollegiate tennis and golf tournaments for 1967 and 1968 were given a questionnaire and the Cattell Sixteen Personality Factor Test. Results indicated differences between personalities of subject groups for 1967 and 1968. From the results of this part of the research, the athlete appears to be toughminded, intelligent, reserved, stable, suspicious, casual, happy-go-lucky, and placid (Malumphy, 1970, p. 21). The personalities of tennis and golf players do not appear to be very different. The personalities of athletes of different skill levels also do not appear to be different. Malumphy cautioned the reader to wait until the research was completed before drawing any conclusions.

She also pointed out weaknesses in her sampling selection and alluded to the fact that her subjects did not necessarily represent all college women in these sports. She also wisely reminded the reader about the limitations associated with personality tests.

Bird (1970) administered the Cattell Sixteen Personality Factor Questionnaire, Jackson's Personality Research Form B, Edwards Personal Preference Schedule, and Osgood's semantic differential to Canadian women ice hockey players. Results of the Cattell Sixteen Personality Factor Questionnaire showed that the athletes are reserved, creative, self sufficient, dependent, introverted, high in autonomy, and not dominating. The Jackson's Personality Research Form B showed the athletes to be aggressive, dominant, achievement oriented, autonomous, and low in affiliation and social approval. The Edwards Personal Preference Schedule resulted in scores of high abasement, nurturance, aggression, and achievement (Bird, 1970, p. 149-156). Bird summarized her results saying that these athletes are intelligent, independent, aggressive, low in affiliation, and willing to accept the blame of others. Again, problems occur in comparing results of tests from different theoretical frameworks.

Peterson, Weber, and Trousdale (1967) studied the differences in personality between women in team and in individual sports. They administered the Cattell Sixteen

Personality Factor Questionnaire to individual and team sport participants chosen from the United States Olympic teams. Sportswomen were found to be alike in sociability, intelligence, stability, surgency, conscientiousness, suspicion, guilt-proneness, self sentiment, and in being cool and aloof (Peterson, Weber, and Trousdale, 1967, pp. 686, 689). Those in individual sports are more dominant, impulsive, self sufficient, aggressive, and imaginative. They like to make their own decisions, and to follow rules. Those in team sports were more self-sufficient, practical, dependable, self-reliant, responsible, and disciplined. They like being in the group (Peterson, Weber, and Trousdale, 1967, p. 689). There is reason to question these conclusions because Peterson, Weber, and Trousdale give no assurance that subjects do not cross sport lines in any other involvements, i.e., recreational sports, other seasonal sports.

College women studied by Malumphy (1968) were organized according to groups of participants in team sports, individual sports, subjectively judged sports (gymnastics and synchronized swimming), a combination of team and individual sports, and nonparticipants. The researcher administered the Cattell Sixteen Personality Factor Questionnaire to determine the personality of athletes. Several differences between each of the groups were found. For example, the team sports group was characterized as introverted, less venturesome, low in leadership. They

are reserved, quiet, and like to stay with the group. Their interest is in winning for the team, not for themselves. The individual sports group is more extroverted, venturesome, and high in leadership. They score low in anxiety and are from a higher socio-economic group than the other groups. The combination team-individual sports group scored high in competitive traits, and they are less extroverted. The subjective group appeared outgoing, imaginative, extroverted, venturesome, and low in anxiety (Malumphy, 1968, pp. 616-619). Malumphy advised that her results be used only as a rough indicator until further research could be completed. Like the works cited above, this investigation also fails to account for sport participants who may be involved in more than one sport.

These three studies (Malumphy, 1968, 1970; Peterson, Weber, and Trousdale, 1967) all used the same instrument to measure the same type of population. There does not appear to be any discrepancy in identifying the athletes, although each study used different terms to describe a similar type of person. If one does not consider multiple sport involvement, it may be said that women in individual sports appear to be intelligent, more extroverted, self sufficient, stable and leaders. Those in team sports seem to be more introverted, dependent, and reserved.

#### Studies of Women Athletes at Different Ability Levels

Williams, Hoepner, Moody, and Ogilvie (1970) used the Cattell Sixteen Personality Factor Questionnaire,

Edwards Personal Preference Schedule, and Jackson Personality Research Form to investigate national women fencers in higher and lower levels of competition. Overall, these fencers are autonomous, reserved, self-sufficient, low in nurturance, high in a need to achieve, intelligent, creative, aggressive, low in sticking to tasks, low in desires to be with the group, normal in leadership traits, and generally cool toward others (Williams, et al., 1970, pp. 449-452). The only difference found between the top and lower level competitor is in the top competitor's higher dominance.

Years ago, Hisey (1957) had similarly investigated the personality traits of college women who played district level basketball and college women who played on a basketball team, but not at the district level. For an assessment instrument, Hisey used the Guilford Zimmerman Temperament Survey for Personality. Categories of personal relations, stability and moods, leadership and self defense, and enthusiasm and general ability were studied. Players who did not make the district teams scored higher in emotional stability and moods, performed better in the physical tests, and in the personality categories referred to as leadership and self defense, and in enthusiasm and general ability.

Ramsey (1962) compared women varsity basketball players from Iowa and Texas with an intramural group from Illinois. She used the Edwards Personal Preference Schedule and the Mercer Physical Education Attitude Inventory and found



differences among all groups. Texas varsity basketball players in comparison to the Iowa varsity was low in aggression and heterosexuality. The Texas varsity scored high in comparison with the Iowa varsity in order and helping others. The Illinois intramural group also scored high in this area, as well as in exhibition and dominance, in comparison with both Texas and Iowa varsity groups. On the other hand, the varsity groups were higher in helping others than the intramural group.

More recently, Ogilvie (1968) combined results from several tests along with his own vast experience with athletes and came to several conclusions about women athletes. Much of his information dealt with swimmers and studies completed at the Santa Clara Swim Club. Ogilvie's information describes the woman swimmer as friendly, bold, and low in anxiety. Ogilvie's list of traits considered to be necessary for successful women athletes includes stability, self-control, courtesy, self-assurance, trust, affiliation, aggression, and extroversion (Ogilvie, 1968, pp. 159-162).

#### Comparison of Men and Women

There are a limited number of studies which attempt to compare personalities of men and women athletes. Kane (1970) reviewed some of the findings of literature on athletic personalities. He summarized athletic traits to include aggression, dominance, drive, tough mindedness,



confidence, and low anxiety (Kane, 1970, pp. 131-141). He commented on the lack of research for women and discussed possible different relationships between personality and physical ability. He reviewed British studies and found differences in the personalities of women of different skill levels. It also appeared that men and women of high skill have similar personalities.

Cooper (1969) reviewed the literature about athletes and personality. In studies of men, he noted increased motivation, emotional and social adjustment, less anxiety, lower feminine images, and a tendency toward aggression. In his limited review of women's studies, he found similar trends in regard to low anxiety and high need to achieve (Cooper, 1969, p. 19).

Ogilvie (1967) and later Ogilvie and Tutko (1971) reviewed the research about the personalities of athletes. They considered the traits of hundreds of athletes and found them to be organized, dominant, trustworthy, achievement oriented, low in anxiety, and high in endurance (Ogilvie and Tutko, 1971, pp. 61-63). Ogilvie expressed the opinion that male and female data were similar. He described women as less extroverted, tough minded, stable, and able to handle stress. They are low in neuroticism, highly dependent, and less creative. They are also impulsive, and less aggressive and dominant than men. Based on his observations, he reported women swimmers to be more outgoing, emotionally

stable, less assertive, more tough-minded, less anxious, and more competitive (Ogilvie, 1967, pp. 91-92).

Ibrahim (1967) administered the Guilford-Martin Inventory of factors to college men and women athletes, physical education majors and dance students. The men athletes and majors scored low in leadership, average in activity, and high in masculinity. Women scored low in being ascending. The dancers are the most feminine and are average in activity, nervousness, and in being ascending. Women physical education majors are low in inferiority, nervousness, and in being ascending; they are average in activity and in masculinity and femininity (Ibrahim, 1967, p. 392).

#### Summary

Other types of personality studies (Hein, 1954; Thorpe, 1958) have been reported that involve as subjects, physical education teachers, physical education majors, and people choosing physical education classes. However, these individuals do not necessarily fit the investigator's category of women athletes. Her criteria specify, among other factors, participation in team competition with a schedule of events. Therefore, it is difficult to interpret the results of the above studies in this literature review.

Klafs and Lyon (1973) in reviewing current literature on women athletes and personality, pointed out the problems

in test types and the variety of approaches to defining the personality. They felt that there are still too many unanswered questions and that more research is needed to permit any generalizing.

Through summarizing the information derived from all of these studies, the following concepts emerge: (1) women in athletics might possibly have certain distinguishing personality traits. However, it is exceedingly difficult to summarize the personality research for two reasons. First, different instruments are used throughout the studies. Each instrument, in turn assesses personality from a different theoretical framework. Thus, by comparing results of different tests, one is not getting a true picture of the personality, and (2) the second problem with the interpretation of these studies arises from the comparison of athletes of different sport types. It is conceivable that athletes serving as subjects could have multiple involvements in several sports which are not accounted for in the research. Thus, conclusions about the personality of the woman athlete can only be offered as highly tentative speculations and not facts.

### Coaches

Literature that is concerned with coaches and their personalities is sparse particularly if one considers only the female coach. Most of the published works refers

to the necessary characteristics of a "good" coach. It also calls attention to the importance of the coach's role in the sport situation.

#### Challenges and Characteristics

Porter (1972) and others (Klafs and Lyon, 1973; Singer, 1972) discussed the possibilities that exist for coaches to provide opportunities in sport which might transfer to life. The importance of helping the athlete to recognize his experiences and then to offer situations where the inherent richness of these experiences can be developed is emphasized. The athletes' perceptions of the coach in turn affect their attitudes toward sport.

Tutko and Richards (1971) stress that coaches need to have knowledge of themselves as well as the individuals they are coaching. They list various types of coaches, emphasizing the potential effect of one's personality on others.

In regard to women in coaching, there is emphasis in the literature on the need for training competent women coaches. Hartman (1968) discusses the importance of coaching courses. She suggests that men could assist in expanding our knowledge about effective coaching.

Neal (1969, 1970) calls attention to the importance of attracting women to better coaching and leadership roles as a means of eliminating myths about women in sport. Spasoff (1971) agrees with a similar suggestion of training

women coaches to rid misconceptions. Currently, Gilbert and Williamson (1973c) also comment on the lack of women coaches to provide models for women athletes.

Another study indicating coach-player relationships was discussed by Malumphy (1971). There is a limited amount of information that coaches do not know their players very well. Coaches of team sports thought their athletes were more outgoing, happy-go-lucky, and controlled than they really were. Coaches of individual sports on the other hand, seemed to know their athletes a little better. Malumphy concluded that coaches must learn to know their players as individuals.

Moore (1962, p. 44) lists necessary traits for coaching. These include loyalty, understanding, energy, professional behavior, organization, and enjoyment of teaching and sportsmanship. Keith (1967) further emphasizes the importance of the coach in being a good teacher.

In general, Ogilvie and Tutko (1971) indicate that personality characteristics which influence coaching success are unknown. However, they point out that the amount of control the coach has over his sport appears to be a consistent factor. They found a variety of coaching personalities in their research.

In comparing the personalities of the coaches and athletes, Ogilvie and Tutko (1971) found many similarities. They also found coaches better able to perceive personality



traits similar to their own, especially ones of dominance, endurance, and drive (Ogilvie and Tutko, 1971, pp. 61-63). Coaches did not seem able to determine emotional control, confidence, trust, tenderness, and faults of the highly skilled athletes. They concluded that the trend toward increased flexibility in the coach must emerge for effective leadership.

Information about the personality of coaches refers primarily to males. For example, Hendry (1969) used the Cattell Sixteen Personality Factor Inventory to compare "ideal coach" perceptions developed with personalities of male swimmers, male coaches, and successful male coaches. Results indicated no difference between the personalities of very successful and regular coaches. There was little difference between coaches' self concepts and those regarded as "ideal." The "ideal coach" concept held by very successful coaches and self concepts of coaches were alike. Thus, coaches did not seem to use perceptions of their own personalities in describing the "ideal coach." There was a similarity between concepts of "ideal coach" as held by successful coaches and swimmers. The "ideal coach" was described as dominating, outgoing, and decision making (Hendry, 1969, p. 304).

Ogilvie and Tutko (1970) expressed the belief that the coach must know himself psychologically to be successful. The researchers studied students who were coaches to obtain



self perceptions and perceptions of other coaches. The Edwards Personal Preference Schedule was used to make the assessment. Obtained self concepts indicated coaches to be more autonomous, achievement oriented, less aggressive, and affiliative than norms that the Edwards Personal Preference Schedule report. It was concluded that coaches' low scores in sensitivity and high scores in determination provided for success without personal involvement (Ogilvie and Tutko, 1970, pp. 73-77).

#### Summary

Information about coaches' personalities is very limited. The literature does, however, permit the following generalizations: (1) the present emphasis is on characteristics necessary for a good coach and possible influences of the coach on the athlete, and there is meager information about women who coach, (2) additional emphasis is on the necessity of training coaches in order to shed light on what are considered misconceptions surrounding women's participation in sport, (3) limited information suggests that coaches do not seem to know their athletes as well as they think they do, and (4) the coach must know himself/herself as well as his/her athletes.

#### Chapter Summary

The review of literature suggests several trends that pertain to the research of the present study. First,

self conceptions are influenced by "significant others." Thus, with the still existing influences of the traditional sex role stereotype, both in society at large and in sport specifically, women involved in athletics are under cultural pressure in terms of their so-called feminine image. For the time being, at least, they are affected by what others think of them, particularly as this may be related to their involvement in certain sport activities and/or types. Today's literature about athletes and coaches indicates a current demand for more information on the subject of the sportswoman's image. By measuring and carefully interpreting women athletes' and coaches' self-perceptions, both groups of individuals will hopefully learn a little more about themselves. Further research into their perceptions of each others' respective roles also offers the promise of increased understanding.

## CHAPTER III

## PROCEDURES

The first step taken in pursuing this investigation was a thorough review of the literature. Following the formulation of questions which the study specifically addressed, data-gathering strategies were next planned. These included the selection of an instrument, determination of subjects, and arranging for such details as preparing semantic differential forms, corresponding with subjects and mailing response forms with appropriate directions. Upon receipt of the semantic differentials from cooperating athletes and coaches, materials were organized for analysis. In analyzing obtained data, the following steps were pursued: (1) determination of profiles of "woman athlete" and "woman coach" by athletes and coaches, (2) comparison of evaluative, potency, and activity responses of coaches and athletes, (3) comparison of the inter-distances of all of the concepts by calculation of D matrices and D models, and (4) analysis of "real coach" data.

The Semantic Differential

The major questions addressed in this study were concerned with the meaning of certain concepts as perceived by athletes and coaches. The semantic differential, specifically, the instrument developed and used by Griffin (1972)

was selected as an appropriate and tested data gathering tool. One other question which the inquiry sought to answer posed a direct question which called for a specific response.

### Rationale

According to Osgood, Suci, and Tannenbaum (1957), there is not a wide selection of instruments which quantitatively measure the concept of meaning. The dynamic nature of meaning which varies in different situations, as well as the intangible characteristics of the concept, contribute to the scarcity of this type of instrument. Defining the term, meaning, has also been a problem. Several different approaches have been taken. Basically, the concept of semantic space is derived from the stimulus→response model. Here, the relation of stimuli (sign) which interpret other stimuli (significate) provide somewhat predictable behavior. Two steps are then involved. First, the stimuli are interpreted; then, behavior, which involves the following ideas takes place. Between these two steps, the concept of meaning is realized (Osgood, Suci, and Tannenbaum, 1957, pp. 3-9).

There have been various attempts to measure this meaning, ranging from physiological methods, learning methods, perceptual methods, associational methods, and scaling methods. In format, the semantic differential developed as a combination of associational and scaling methods. The instrument consists of a set of bipolar

words, opposite in meaning, with a series of steps between words. All responses to the scales are directed toward the meaning of a specific concept (Osgood, Suci, and Tannenbaum, 1957, pp. 11-23).

The concept of sensations interrelating with each other helped provide the background for developing the semantic differential. By applying the concept of semantic space to geometry, meaning is represented in a functioning way. Each scale of bipolar adjectives represents a line in space. By having the responses to several scales, a certain point in space emerges to represent the meaning of a concept. Thus, the general meaning of a concept in several dimensions of semantic space is determined, as the subject interprets factors equated with the concept. Because interpretation occurs, meaning is then assigned (Osgood, Suci, and Tannenbaum, 1957, pp. 26-30).

Osgood<sup>1</sup> applied factor analysis to ascertain which scales to use. He believed that the scales should provide a variety of selections, as well as those that an individual would naturally select. He attempted to eliminate bias as much as possible (Osgood, Suci, and Tannenbaum, 1957, p. 31). By repeated factor analyses, Osgood attempted to completely cover semantic space. In these studies, although several factors appeared, three continually emerged with a majority

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<sup>1</sup>Hereafter, all reference to Osgood refers to the book he authored with George Suci and Percy Tannenbaum entitled, The Measurement of Meaning.



of variance. The first was described as an evaluative factor. This factor involved attitudes, rewards, punishment, and judgment. The second factor was named the potency factor. This factor involved power, size, weight, and touch. The third factor was not as well defined as the first two. It was called activity, and was concerned with quickness, excitement, and warmth (Osgood, Suci, and Tannenbaum, 1957, p. 62).

From these three factors, a three dimensional model of meaning can be evolved. Because attitude is taken into consideration in the evaluative factor, the addition of the other two factors provides a more comprehensive picture of meaning than an attitude scale. It is also felt that two individuals might have the same attitude toward a concept, while also perceiving different meanings of the concept (Osgood, Suci, and Tannenbaum, 1957, p. 82). Thus, the semantic differential was chosen to measure the general meaning of the perceptions of the concepts involved in this study.

#### Previous Studies

The semantic differential has been used successfully in many areas of research. Summers (1970) cites the use of this instrument as a method of determining attitude. Snider and Osgood (1969) report several studies that have used the semantic differential in communication research, experimental



psychology, social psychology, and in personality and clinical psychology.

In studies relating specifically to perceptions of women in sport, Brown (1965) and Griffin (1972) both used the semantic differential. Brown's results indicated that most of the athletic roles of women were perceived to be high in activity and low in evaluative factors; in contrast, the "feminine girl" was perceived to be high in evaluative and low in activity factors.

Griffin (1972) investigated the perceptions of women's roles in general and specifically in sport, and the influence of social background on perceptions of these roles. Results indicated that traditional sex-role stereotypes still exist. The "ideal woman" was considered to be low in potency factors, somewhat active, and high in evaluative factors. The "woman athlete" and "woman professor" were perceived to be low in evaluative factors and high in potency and activity factors. The only influences on these perceptions appeared to be the sex and lifestyles of the subjects (Griffin, 1972, pp. 156, 162).

#### Format

Osgood believes that because of the general information provided by the semantic differential, it is adaptable to different concepts. He indicates that the concepts have one meaning for all subjects and at the same time, reveal individual differences in interpretation. Finally, it is

asserted that the concepts involve a general awareness toward them by all subjects involved (Osgood, Suci, and Tannenbaum, 1957, pp. 76-78).

It was suggested that several scales be used to represent each of the three factors because of the difficulty in finding a single scale to fully measure a factor. Specifically, these criteria state that scales "represent each factor," show "relevance to the concepts being judged," are stable in meaning of concepts by subjects, and have opposite meanings, i.e., "be linear . . . and pass through the origin (Osgood, Suci, and Tannenbaum, 1957, pp. 78-79)."

The scales help to define the concept. They involve sets of polar words with opposite meanings. Finally, in preparing a semantic differential, it was suggested by Osgood that scales be mixed in order to prevent predetermined judgments. It is also recommended that fifteen scales with an equal number of scales for each factor be used. Osgood proposed that seven places between the scale words are a suitable number of steps because seven response alternatives yields full use of steps. The use of seven steps also provides direction as well as degree between the words. His suggested format (Osgood, Suci, and Tannenbaum, 1957, p. 28) follows:

Polar term X 1 : 2 : 3 : 4 : 5 : 6 : 7 Polar term Y

1	Extremely X	5	Slightly Y
2	Quite X	6	Quite Y
3	Slightly X	7	Extremely Y
4	Neither X nor Y		
	Equally X and Y		

The steps in the scales in the present study were numbered one through seven to permit statistical analysis. Osgood points out that any set of numbers and any direction from one to seven is usable. The numbers do not indicate which scale word is better or worse; rather, they represent direction and intensity. In the final analysis, results either show perception to be the same or different among groups. It is important to keep in mind, therefore, that responses to a semantic differential do not indicate value or which perception is better. From the responses given, scores can then be put in a solid geometric form represented by concepts X subjects X scales (Osgood, Suci, and Tannenbaum, 1957, pp. 26, 86).

For this study, the following four concepts were measured: (1) "woman athlete" as perceived by women athletes, (2) "woman athlete" as perceived by women coaches, (3) "woman coach" as perceived by women athletes, and (4) "woman coach" as perceived by women coaches.

#### Griffin's Scales

The scales selected to determine the meaning of these concepts were taken from Griffin (1972). She developed and utilized the scales to determine perceptions of various women's roles. One of the roles used by Griffin (1972, p. 34) concerned the woman athlete. Her fifteen scales were accepted as following the criteria set by Osgood.

These scales were previously tested by factor analysis with the exception of one scale, sexually attractive-sexually unattractive which Griffin (1972, p. 39) felt to be consistent with the other evaluative scales. Griffin's (1972, p. 39) test-retest determined reliability. Pearson r scores ranged from .72 to .94 for her concepts. The instrument was accepted on face validity in line with Osgood's statement that the instrument could be validated with common sense (Griffin, 1972, p. 39). Griffin argued that her instrument is objective because "its operation and means of arriving at results are explicit and reproducible (Griffin, 1972, p. 39)."

The scales used on Griffin's (1972, p. 38) semantic differential, chosen after preliminary testing, include:

Evaluative

Affectionate-Cold  
 Attractive-Unattractive  
 Interesting-Boring  
 Nice-Awful  
 Sexually Attractive-Sexually Unattractive

Potency

Hard-Soft  
 Heavy-Light  
 Intelligent-  
     Unitelligent  
 Masculine-Feminine  
 Thick-Thin

Activity

Competitive-Cooperative  
 Experimental-Conservative  
 Fast-Slow  
 Loud-Soft  
 Tense-Relaxed

For purposes of this study, it was assumed that the mean score of the three factors and their five scales for each factor represented on Griffin's (1972) semantic differential defined the desired perceptions in this

study. These scales comprised Part I of the instrument. See appendix, page 137.

### Direct Response Questions

Part II of this study involved responses from athletes only. After completing the semantic differentials, athletes were asked to name the "real" person who comes to mind when they think of the term "coach." Subjects were also asked to name the relationship, if any, that this "real" person has to them. The purpose of this part of the study was twofold. First, tabulation of this data was of general interest to the investigator. Also, it was conceived that the information might give an indication of possible referents to responses to the "woman coach" concept included in Part I of the study.

### Selection of Subjects

Subjects participating in the study consisted of women athletes and women coaches who engaged in competitive basketball, tennis, and swimming teams in the SIAW. Specifically, 48 women coaches from the universal SIAW sample responded to the instrument. One hundred and twelve women athletes from SIAW active member college teams in North Carolina served as subjects. This sample was selected for several reasons. First, to delimit the sample of athletes to a specific region for convenience of testing, teams from North Carolina belonging to the SIAW were chosen.



Then, in order to intentionally accommodate a general selection of athletes, those representing more than one sport, tennis, basketball, and swimming teams were used. This selection took into consideration the time of the year, i.e., these individuals participated in the study when their teams were active. Second, in order to provide for a sample of more adequate size, the SIAW roster of coaches for these teams was used.

#### Correspondence with Subjects

Letters with an enclosed self addressed post card explaining the nature of the study were sent to all coaches of basketball, tennis, and swimming teams of active members in the SIAW during the winter and spring of 1973. Coaches were asked to return the post cards either agreeing or refusing to participate in the study. Where applicable, coaches also listed the number of semantic differential forms needed for their athletes. Coaches agreeing to participate were then sent the designated test materials with an enclosed self addressed stamped envelope for returning the information. The coaches were then asked to administer the tests in a single session and to return the information as soon as possible.

#### Preparation and Distribution of the Instrument for Testing

The instrument for all subjects consisted of two semantic differential forms and a cover sheet of directions

taken from Griffin (1972). Each subject was asked to respond to the concepts "woman athlete" and "woman coach" in terms of how they were perceived by respondents. The semantic differential forms were administered in an alternate order to attempt to balance out any influence that taking the first concept might have on taking the second one. Thus, one half of the subjects responded to "woman athlete" first; the remainder of the subjects responded to "woman coach" first.

Athletes were then asked to respond to Part II of the test after they had completed and returned the two semantic differential forms. This was to avoid possible influence of Part II on Part I. Part II involved naming the "real" person that came to mind when the athlete thought of the term "coach" and the relationship, if any, of this person to the athlete.

The test materials were distributed through the mail with additional directions on the cover letter for administration. As much as was possible geographically, the investigator administered some of the tests to teams within travel distance. Subjects responded to the instruments either during the middle, or right after the regular season had been completed. See Appendix, page 134 for list of schools participating in this study.

### Analysis of Data

Several different analytic procedures were followed to determine the answers to the seven questions framing the study. During the analysis, no attempt to compare responses of athletes or coaches among the different sports was made because of the difficulty in finding a pure sample where an athlete or a coach participated in only one sport. Thus, the responses were analyzed as complete sub-samples of coaches or athletes.

### Profile Analysis

Answers to questions one through four concerning the perceptions of the four concepts, "woman athlete" and "woman coach" by women athletes and women coaches, were determined by profile analysis. This involved deriving the mean scores for each of the fifteen scales. Then, these scores were plotted and connected to form a profile for each of the four concepts. By observation, some relationship among the concepts could be determined. Then, the scores which were either extremely X or extremely Y, or quite X or quite Y, provided information on scales which showed extreme trends in the perceptions of the concepts.

### Sign Test

Question five concerning the difference between the perceptions of "woman athlete" and "woman coach" for

athletes and for coaches was answered by administering the sign test to obtained data. A nonparametric statistic was chosen because of the nature of the semantic differential. It was possible to determine direction of the meanings of the concepts. However, it was not possible to determine how much more or "better" the direction was. The interest was in plotting points at opposite ends of the scales which locate meaning in semantic space. Use of a parametric statistic would have been based on unsupportable assumptions (Siegel, 1956, p. 33).

Osgood, discussing significance of differences between group responses to the meanings held for concepts, points out that the distribution of D (distance) is not known. He states that: "It is probably not normal in shape, and if not, normal curve statistics are not applicable. In the group situation, a number of non-parametric tests can be applied (Osgood, Suci, and Tannenbaum, 1957, p. 101)."

The sign test was chosen for use in the present study because it ranks two members of a pair of results when it is not possible or feasible to measure the pair quantitatively (Siegel, 1956, p.68). The sign test determines if the two concepts or conditions are different, but not how much difference there is. This test, then, does not tell which end of the scale is "better." In calculating the sign test for obtained data, positive and negative

signs were arbitrarily but consistently assigned in terms of numerical value. One and seven represent outer boundaries of semantic space from an origin or lining up of the scales in the middle of semantic space. Conclusions were drawn on the basis of closeness of a point to the origin. There is only one assumption underlying the sign test; this involves continuous distribution of data (Siegel, 1956, p. 68). The data collected in this study meets this criterion.

In analyzing the data, first, the evaluative, potency, and activity totals for each individual between perceptions of "woman athlete" and "woman coach" were compared according to the sign of the difference. For each set of comparisons, the question, is there a significant difference, was asked. Differences between pairs of data were tested as being two tailed, i.e., a significant difference occurred between the two frequencies (Siegel, 1956, p. 69). The .05 level of significance for each calculation was set. Because both sample totals were larger than 25, the z table was used. The use of this table makes a normal approximation of the binomial distribution to which a correction for continuity is made (Siegel, 1956, p. 72). The correction involves subtracting .5 from the difference between the observed and expected number of plus and minus signs. Thus, a zero mean with unit variance and a normal distribution characterize the sign test resulting z (Siegel, 1956, pp. 36, 40, 41).



A significant difference was accepted when the calculated probability was greater than the tabled value specified for .05 level of confidence.

Next, the evaluative, potency, and activity totals for each individual for each concept were compared according to the sign test of the difference. For comparisons among factors, the question, is there a significant difference, was asked. Differences between sets of data were tested as one tailed, to predict occurrence of one sign more often in the difference (Siegel, 1956, p. 69). The .05 level of significance was set for determination of significance of difference. Because sample totals were again larger than 25, the z table was used. Significance of difference between factors was interpreted to indicate distinct concepts.

#### D Matrix and D Model

Question six concerning the comparison and inter-distances of all of the concepts was analyzed with a D matrix and a D model. Osgood (Osgood, Suci, and Tannenbaum, 1957, p. 93) asserted that: (1) as long as there were equal intervals between all scales, (2) that each factor had equal numbers of scales, and (3) that the scales were independent from each other in meaning, all of the scales of the three factors can be analyzed together as a total concept. This concept can be put into a matrix of semantic space showing the concepts' distances from each other in three dimensions.

The area of space surrounding the axes of the three factors then would define semantic space. More specifically, meaning would then become "that point in the semantic space identified by its coordinates on several factors (Osgood, Suci, and Tannenbaum, 1957, p. 89)."

Using the distance values from the D matrix as radii of spheres, the D model was created showing this relation among concepts. Osgood felt that by using this three dimensional method of looking at concepts, one could avoid distorting the results of the relationships. In contrast, he argued that the product-moment correlation can not fully show this relationship. Thus, Osgood (Osgood, Suci, and Tannenbaum, 1957) used the generalized distance formula from solid geometry to get at this three dimensional relationship among concepts. D in the present study was determined by "taking the difference between the scores of the two concepts on each factor, squaring this difference, summing these squares, and taking the square root of the sum (Osgood, Suci, and Tannenbaum, 1957, p. 91)."

For each concept, then, the mean evaluative, activity, and potency scores were determined. Then, the D formula was applied to form a D matrix. These mean scores plus the calculated distances were then transferred to the D model, showing the relationships and inter-distances of all concepts to each other. Along with computing the distances between

concepts, the distance from each concept to a hypothetical origin or point of "meaninglessness" was determined to add clarity in comparisons. Concepts nearer to the origin have less "saturation" in meaning than those farther away. Also, concepts opposite in meaning or independent in meaning, i.e., forming a right angle, can be observed (Osgood, Suci, and Tannenbaum, 1957, pp. 96-97). The origin then represents the central lining up of scales or the middle of semantic space. Distance can be interpreted according to the amount from the origin.

#### Direct Response Question

Question seven concerning the "real" person coming to mind when athletes thought of the term "coach" was analyzed by tabulation of the responses and then determining the percentages of different responses. A general idea of who the athlete was thinking of when she responded to "woman coach" scales was then made.

## CHAPTER IV

### DATA AND ANALYSIS

Answers to the seven questions posed at the outset of this paper were determined according to the procedures described in the previous chapter. They represent the results of this investigation and are presented in this chapter.

#### Perceptions of "Woman Athlete" and "Woman Coach"

To determine the perceptions held by women athletes and women coaches for each concept, the means of the scales comprising each concept were determined. See Table 1. Then, they were plotted to form profiles. See Figures 2, 3, 4, and 5. Thus, the following questions were answered:

"How do women athletes perceive 'woman athlete?'"

"How do women athletes perceive 'woman coach?'"

"How do women coaches perceive 'woman athlete?'"

"How do women coaches perceive 'woman coach?'"

Then, the range of values given in Figure 1 was arbitrarily assigned to obtained means for further interpretation.

#### Perception of "Woman Athlete" by Women Athletes

Figure 2 reveals that women athletes perceive the "woman athlete" to be somewhat neutral in response to the

X   1 : 2 : 3 : 4 : 5 : 6 : 7   Y

1.00 to 1.5	=	Extremely X
1.6 to 2.5	=	Quite X
2.6 to 3.5	=	Slightly X
3.6 to 4.5	=	Neither X nor Y and/or Equally X and Y
4.6 to 5.5	=	Slightly Y
5.6 to 6.5	=	Quite Y
6.6 to 7.00	=	Extremely Y

FIGURE 1  
Assigned Values for Interpretation  
of Scale Means



TABLE 1  
Scale Means for Four Concepts

Scale and Number of Direction	Concepts			
	WA by wa	WA by wc	WC by wa	WC by wc
Attractive (7)-Unattractive (1)	4.6	5.2	4.5	4.9
Boring (1)-Interesting (7)	5.6	5.4	5.6	5.4
Thick (7)-Thin (1)	3.7	3.6	3.6	3.7
Relaxed (1)-Tense (7)	3.3	3.3	3.3	4.2
Sexually Attractive (7)-Sexually Unattractive (1)	4.5	4.8	4.2	4.5
Nice (7)-Awful (1)	5.6	5.6	5.8	5.5
Soft (1)-Loud (7)	4.3	4.2	4.4	3.9
Feminine (1)-Masculine (7)	3.5	3.2	3.6	3.4
Unintelligent (1)-Intelligent (7)	5.6	5.5	6.0	5.6
Cold (1)-Affectionate (7)	4.9	5.0	5.1	4.8
Soft (1)-Hard (7)	4.1	4.2	4.1	4.2
Competitive (7)-Cooperative (1)	5.4	4.6	5.0	5.2
Heavy (7)-Light (1)	4.0	3.7	3.8	3.8
Experimental (7)-Conservative (1)	5.0	4.6	5.0	4.1
Slow (1)-Fast (7)	5.5	5.6	5.1	4.7

Note.-Perception of Woman Athlete = WA  
 Perception of Woman Coach = WC  
 Women Athletes = wa  
 Women Coaches = wc

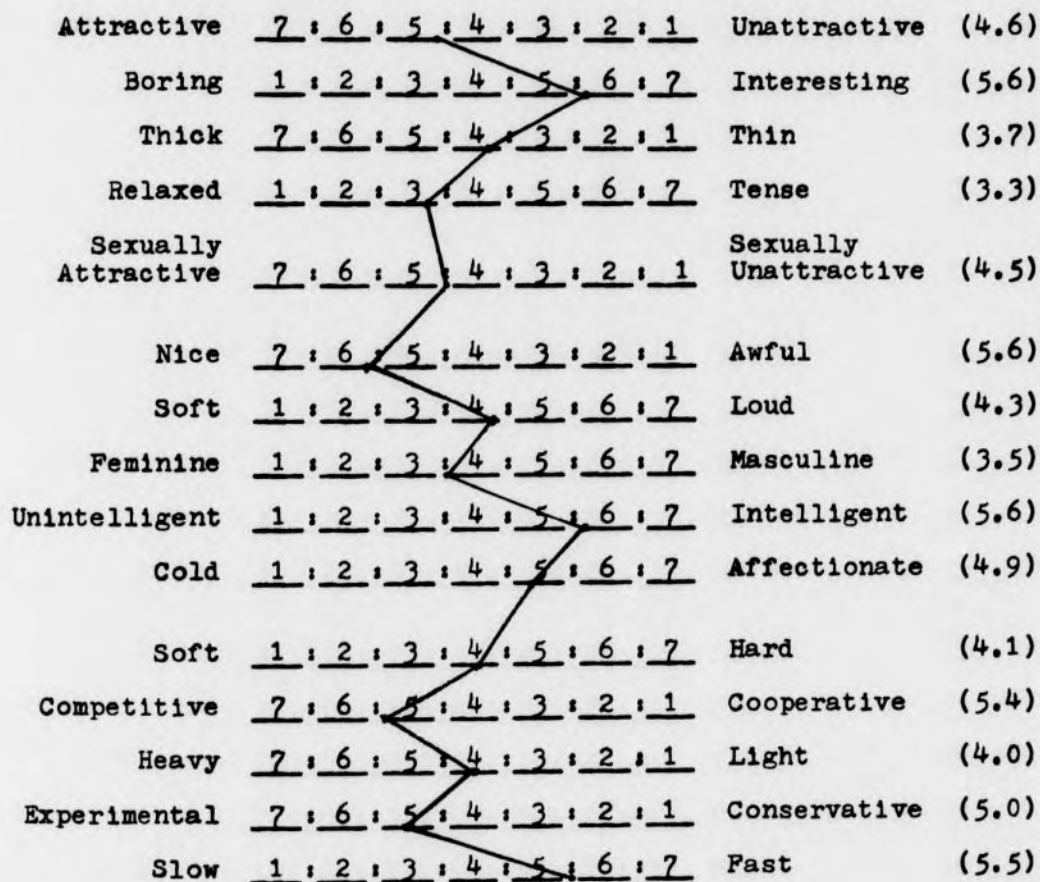


FIGURE 2

Profile of Scale Means for "Woman Athlete"  
As Perceived by Women Athletes

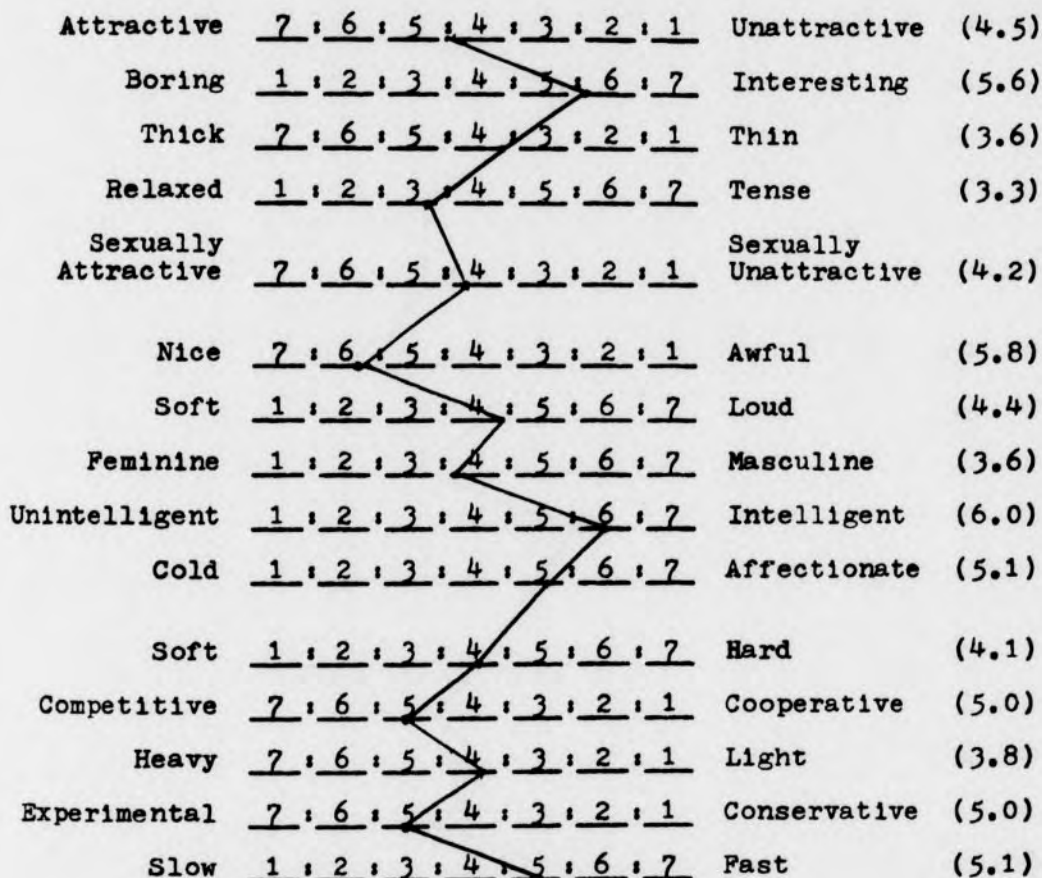


FIGURE 3

Profile of Scale Means for "Woman Coach"  
As Perceived by Women Athletes

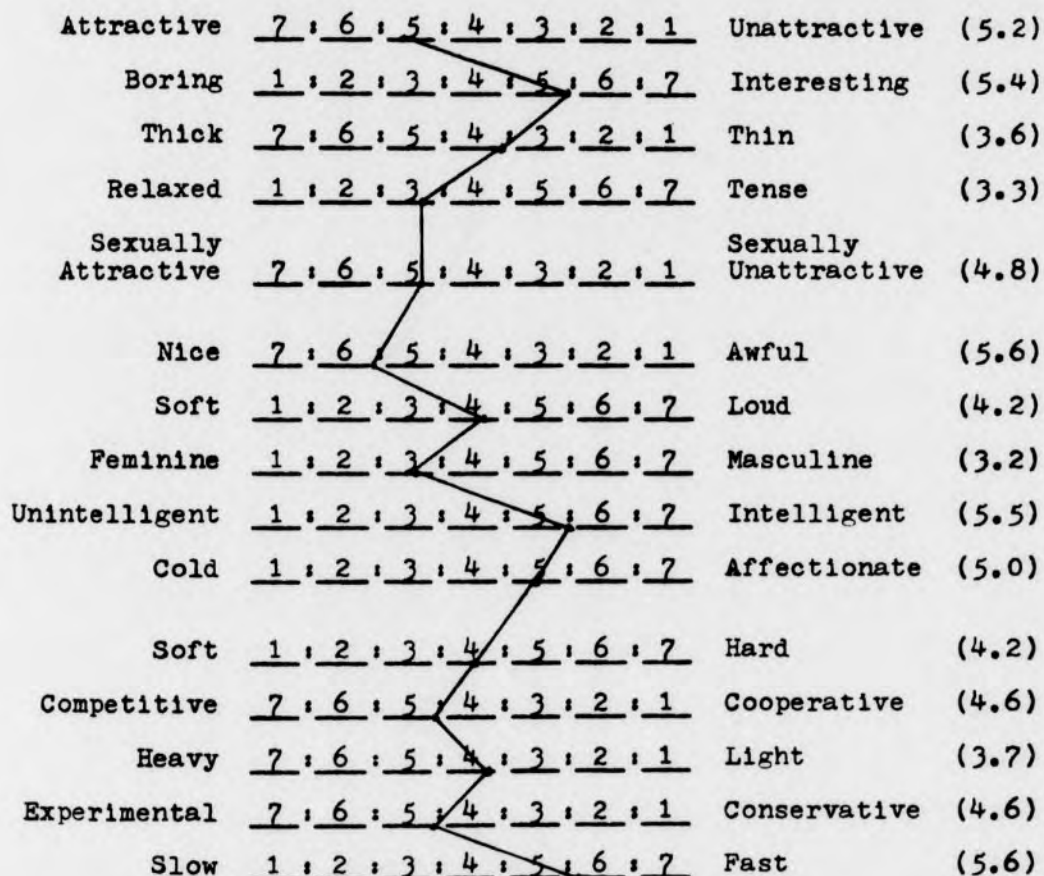


FIGURE 4

Profile of Scale Means for "Woman Athlete"  
As Perceived by Women Coaches

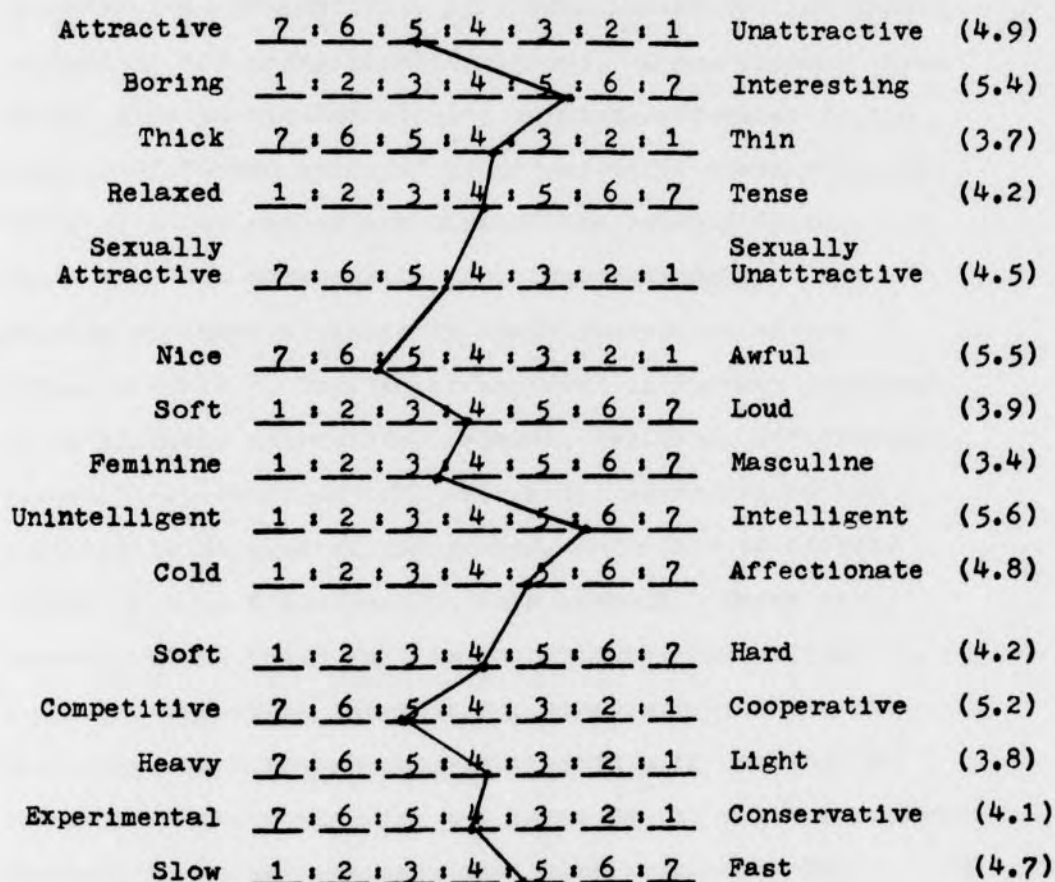


FIGURE 5

Profile of Scale Means for "Woman Coach"  
As Perceived by Women Coaches



words thick-thin (potency), sexually attractive-sexually unattractive (evaluative), soft-loud (activity), soft-hard (potency), and heavy-light (potency). These bipolar terms do not give particular clarity or distinctiveness to the meaning of "woman athlete" as perceived by women athletes. Three of these scales are part of the potency factor, which does not necessarily contribute strongly to the meaning of these athletes in their perception of the "woman athlete." The "woman athlete" is further perceived to be slightly attractive, relaxed, feminine, affectionate, competitive, experimental, and fast. According to the arbitrarily designated categories, there are no extreme values of X or Y assigned to this concept. There are, however, means which fall in the slightly classification, i.e., 5.6 for quite interesting, nice, and intelligent. This suggests stronger conceptualization of meaning for these scale items than for the terms on the neutral scales. Inasmuch as these responses deal with women athletes' perceptions of a concept which they are themselves experiencing, this interpretation may also be considered as a self perception.

#### Perception of "Woman Coach" by Women Athletes

The "woman coach," as seen in Figure 3, is perceived by women athletes to be neutral in attractive-unattractive (evaluative), relaxed-tense (activity), sexually attractive-

sexually unattractive (evaluative), soft-loud (activity), feminine-masculine (potency), soft-hard (potency), and heavy-light (potency). Again, three of these scales contribute to the potency factor, suggesting only moderate influence of these items to the athletes' perception of the "woman coach." This is consistent with the obtained perception of "woman athlete." The "woman coach" is further perceived to be slightly relaxed, affectionate, competitive, experimental, and fast. There are no means of extremely X or Y, though there are scores which fall in the Quite category--interesting, nice, and intelligent. These items are perceived the same way by the same subjects in regard to the "woman athlete." Generally, perceptions of the "woman athlete" and of the "woman coach" by women athletes are the same; however, the intelligence of the coach is perceived more strongly by the athletes comprising the sub-sample, and the "woman athlete" concept has a slightly more competitive and faster meaning.

#### Perception of "Woman Athlete" by Women Coaches

The "woman athlete," as seen in Figure 4, is perceived by women coaches to be neutral in thick-thin (potency), soft-loud (activity), soft-hard (potency), and heavy-light (potency). Again, three of these scales are in the potency factor, showing that they do not influence the meaning held for the concept. The "woman athlete" is

further perceived to be slightly attractive, interesting, sexually attractive, relaxed, feminine, intelligent, affectionate, competitive, and experimental. There are no extreme means, though there are means in the quite category for the terms nice and fast, which fall in the second to the most extreme categories.

#### Perception of "Woman Coach" by Women Coaches

Figure 5 shows that women coaches perceive the "woman coach" to be neutral in thick-thin (potency), relaxed-tense (activity), sexually attractive-sexually unattractive (evaluative), soft-loud (activity), soft-hard (potency), heavy-light (potency), and experimental-conservative (activity). These scales demonstrate a lack of clarity to the meaning of the concept, "woman coach," as held by coaches. This is particularly revealing if one regards women coaches' perceptions of the "woman coach" as a self-conceptualization. The "woman coach" is further perceived to be slightly attractive, interesting, nice, feminine, affectionate, competitive, and fast. Again, there are no extreme means, although there is a mean of quite intelligent assigned by women coaches to the concept of "woman coach."

Perceptions of the "woman athlete" and "woman coach" by women coaches are similar. Differences are observable in the "woman coach" being slightly more relaxed, competitive,

and the "woman athlete" considered to be more experimental, and fast. The "woman coach" has the most neutral scores. These occur in factors referred to by Osgood as activity and potency. This suggests a lack of definiteness in meaning of this concept for coaches.

#### Comparison of Perceptions Through Profile Analysis

Table 1 and Figure 6 permit an overall visual comparison of the four perceptions. In general, all four concepts are very similar, and follow the same pattern with a balance between the neutral and slightly X and Y preferences. There are no extreme scores, i.e., extremely X or Y, for any of the scales. The concept of the "woman athlete" by women coaches appears to have the most meaning in terms of having the fewest neutral responses. The "woman athlete" as perceived by women athletes has the next fewest neutral responses. Both concepts have neutral responses in the same scales, i.e., thick-thin, soft-loud, soft-hard, and heavy-light. Women athletes who served as subjects for this study, like women coaches, also do not perceive a difference between sexually attractive -sexually unattractive for "woman athlete."

The scales with the most spread among concepts are relaxed-tense, competitive-cooperative, experimental-conservative, and slow-fast. These have a .8 to .9 difference between means. These scales are all part of the activity factor, showing that within this factor,

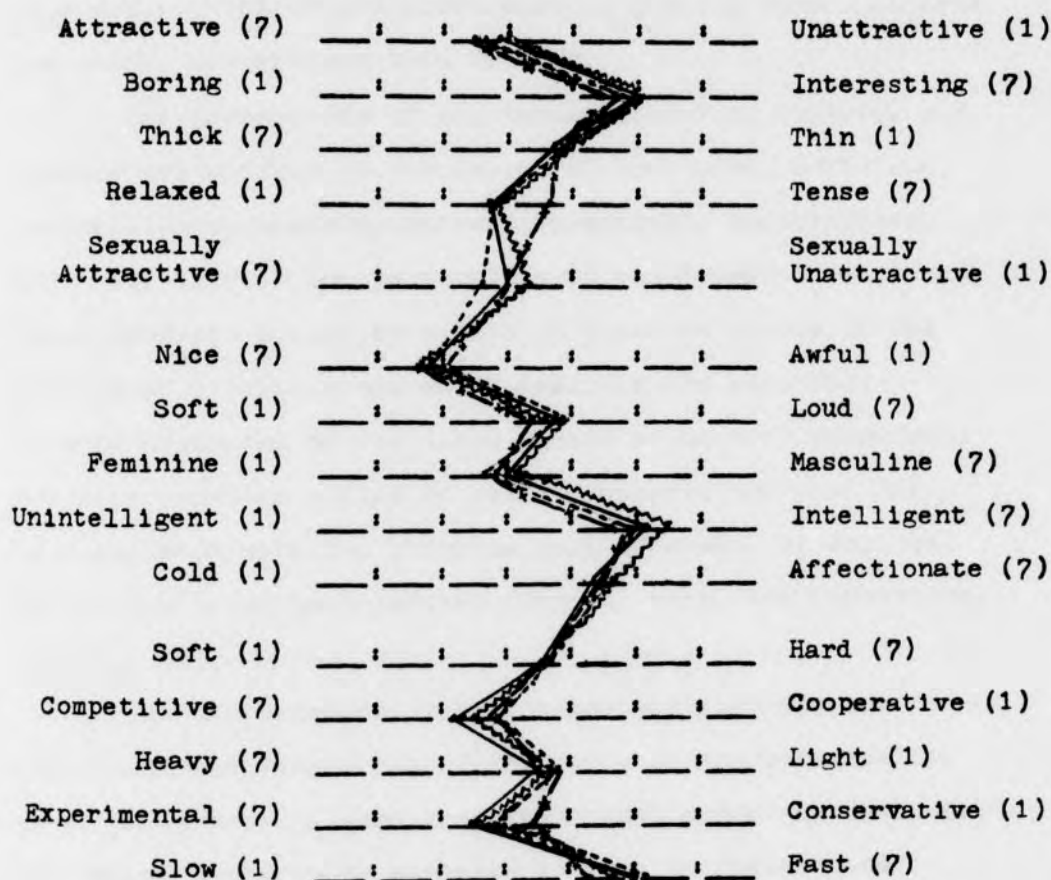


FIGURE 6

## Combined Profiles for Four Concepts

Note.-"Woman Athlete" by Women Athletes = \_\_\_\_\_  
 "Woman Coach" by Women Athletes = ~~~~~~  
 "Woman Athlete" by Women Coaches = - - - - -  
 "Woman Coach" by Women Coaches = - x - x -



there appears to be the most differences in perceptions of meaning. The actual difference in the two roles, athlete and coach, may explain this finding.

The perceptions of the "woman coach" by athletes and coaches are neutral in the scales of soft-hard, soft-loud, relaxed-tense, sexually attractive-sexually unattractive, and heavy-light. The perceptions of the "woman coach," by these subjects indicates a lack of distinctiveness of the meaning of bipolar words which describe the concepts. This is evidenced by the large amount of neutral responses. Possibly, this is a sign of general uncertainty that may be associated with the changing role of women, as well as the factor being less defined (Osgood, Suci, and Tannenbaum, 1957, p. 62).

The two concepts of the "woman athlete" and the concept of the "woman coach" by athletes are perceived to be slightly more relaxed than the "woman coach" by coaches. The "woman athlete" by athletes is seen in Table 1 and Figure 6 to be perceived as more competitive than the other three concepts. Similarly, the "woman coach" by coaches is conceptualized to be slightly more experimental. Women coaches perceive the "woman athlete" to be quite fast.

All four concepts are perceived to be in between the neutral and the slightly categories for femininity, as opposed to masculinity. This is supported by the current women in sport literature which indicates that sportswomen

have a more favorable impression of the woman athlete than those not involved in sport (Harres, 1968; Malumphy, 1970). Also, the responses support the idea that a slight shift is occurring from the traditional sex role stereotypes cited by Brown (1965), Chesler, (1971), Griffin (1972), Hart (1971, 1972), and Steinmann (1963). That is to say, although subjects in this study do not consider women athletes or coaches to be extremely feminine, their perceptions are away from the masculine end of the scales. This seems more in line with some of the statements in the literature made by Bott (1970), Klafs and Lyon (1973), Reece (1964), and Sherriff (1971).

The popularity of neutral responses, particularly for concepts of the "woman coach," indicate that the perceptions of these people are generalized rather than connotative of distinctive meanings. The most definite perceptions, that is, those with the least number of neutral responses, are of the "woman athlete." Although these perceptions do not indicate specific images, they do suggest characteristics that coaches and athletes perceive in relation to each other. In an earlier chapter of this report, the literature of Kipnis (1961), Maehr, Mensing, and Nafzger (1962), Reeder, Donohue, and Biblarz (1960), and Sherwood (1965) was cited. These studies suggest that individuals behave and form self concepts in accordance with how they feel others perceive them to be, particularly if the individual has a lower self

concept. For women coaches and athletes, this idea offers two lines of elaboration. First, women coaches and athletes are pursuing an activity that challenges their femininity (Brown, 1965; Griffin, 1972; Harris, 1971a; Klafs and Lyon, 1973). Thus, the perceived opinions held by the general public will possibly influence self concepts of these athletes and coaches. Second, the perceived opinions held by women athletes and coaches about each other will possibly influence self concepts of these women. The subjects in this study do not have distinctive meanings of the concept, "woman coach"; instead, this concept is perceived to be more generalized in meaning.

Thus, although these four concepts are for the most part very similar, some variations are discernible. The perception of "woman athlete" by women coaches appears to have the most distinctive meaning of all four perceptions. It has the fewest neutral responses. Scales in the activity factor have the greatest spread of scores, indicating differences in perceptions that relate to quickness, excitement, and warmth. One is reminded although, that Osgood himself points out that the activity factor is less defined than the evaluative or potency factors (Osgood, Suci, and Tannenbaum, 1957, p. 62).

The perceptions of the "woman coach" by athletes and coaches had the most neutral responses, showing a least distinct or sharp meaning at this time. This might be due

to the amount of uncertainty associated with the meaning of this concept with the changing role of women. Women athletes and coaches making up the sample of this study do not evaluate each other to be extremely feminine, although they do feel that these women are more feminine than masculine. Thus, the traditional sex role stereotype persists, although there is also evidence that it may be shifting slightly.

Differences Among Factors Comprising the Perceptions  
of "Woman Athlete" and "Woman Coach"

In order to answer the question, "Do the perceptions of these concepts differ for women athletes and women coaches," the evaluative, potency, and activity factors comprising the meaning were statistically examined. The sign test was applied to obtained data to determine the significance of difference between each of the separate factors according to the perceiver--woman athlete or woman coach. Thus, the following questions were answered:

"Do the perceptions of these concepts differ for women athletes and women coaches?"

'Woman athlete' with 'woman coach' by women athletes

'Woman athlete' with 'woman coach' by women coaches"

Table 2 presents the z values determined by the application of the sign test to subjects' responses. No significant difference was found between evaluative and

TABLE 2

z Values for Sign Test for Comparisons Between  
Perceptions Held by Women Athletes and by Women Coaches

Perceptions of "Woman Athlete" and "Woman Coach" As Held by Women Athletes	
Factor	z Value
Evaluative	.510
Potency	.938
Activity	2.990*
Perceptions of "Woman Athlete" and "Woman Coach" As Held by Women Coaches	
Factor	z Value
Evaluative	1.136
Potency	2.488*
Activity	2.499*

\*  $\geq 1.96$  is required z-value for  $p \leq .05$ .



potency factors of athletes' perceptions. At alpha .05, there was, however, a significant difference of scale items making up the activity factors of the two concepts as perceived by women athletes. As for coaches' perceptions, there was no statistically significant difference between "woman athlete" and "woman coach" on the evaluative items, but potency and activity factor scales were perceived to be significantly different for the two concepts.

To aid in the interpretation of these results, Osgood calls attention to the matter of origin. Origin is a hypothetical point of "meaninglessness" located in the center of semantic space. A concept with the midpoints of all of its scales marked, would fall into the origin of semantic space. By moving away from the origin in one way or the other toward the periphery, more "saturation" or distinctiveness in meaning occurs (Osgood, Suci, and Tannenbaum, 1957, pp. 96-97).

The potency factors for the two concepts perceived by women coaches fall the same distance on either side of the origin of 4.0 for that factor, indicating the same amounts of distinctiveness in meaning. The activity factor for the perception of the "woman athlete" as held by coaches is farther from the origin than for "woman coach." Coaches in this study, then, perceive athletes and coaches to have similar distinctiveness in the evaluative factor. Insofar as women athletes assign meaning to the concepts, "woman

athlete" and "woman coach," the activity factor for the "woman athlete" is farther away from the origin than for the "woman coach." This indicates more distinctiveness in the activity factor for the perception of the "woman athlete." Athletes' responses yield the same meanings as coaches' responses when considering the evaluative factor for the "woman athlete" and the "woman coach." Finally, athletes perceive no difference in the potency factor between the two perceptions.

It is difficult to summarize the findings of the analysis of factor differences. At one and the same time, the perceptions seem to be the same for coaches and athletes, i.e., evaluative and activity scales, yet slightly different if one studies the potency scale items. Inasmuch as all three factors contribute to conceptual meaning, the investigator's interpretation seems best deferred to judgment on the basis of the D model which is designed to give a clearer picture of the total concepts as they are represented in semantic space.

It might be kept in mind, nevertheless, that assuming women coaches had some prior experiences as athletes, their similar perceptions of the concepts to those of athletes is logical. At the same time, the newness of their coaching role, as may be the situation for some of the subjects, may account for the slight differences in potency scales.

Models in Semantic Space of Meaning Held  
for "Woman Athlete" and "Woman Coach"

To formulate a comparison of the meanings of the four concepts, two steps were taken. First, the distinctiveness of each concept was assessed. Next, the D formula was computed to form a D matrix. From this matrix, and with the means of the factors, a D model was plotted. With this information, the following questions were answered:

"How do these perceptions compare:

'Woman athlete' by women athletes with 'woman coach' by women athletes

'Woman athlete' by women athletes with 'woman athlete' by women coaches

'Woman athlete' by women athletes with 'woman coach' by women coaches

'Woman coach' by women athletes with 'woman coach' by women coaches

'Woman athlete' by women coaches with 'woman coach' by women coaches

'Woman athlete' by women coaches with 'woman coach' by women athletes."

Distinctiveness of Concepts

To compare the total perceptions in semantic space, the sign test was used to assess the significance of difference among the three factors for each concept. Differences in women athletes' perceptions were considered separately from differences perceived by women coaches. Factor means are presented in Table 3. Table 4 indicates

TABLE 3  
Factor Means for Concepts as Held by  
Women Athletes and Women Coaches

Perceptions Held by Women Athletes	
Factor	Mean
Of the "Woman Athlete"	
Evaluative	5.027
Potency	4.152
Activity	4.713
Of the "Woman Coach"	
Evaluative	5.052
Potency	4.221
Activity	4.541
Perceptions Held by Women Coaches	
Factor	Mean
Of the "Woman Athlete"	
Evaluative	5.243
Potency	3.938
Activity	4.571
Of the "Woman Coach"	
Evaluative	5.029
Potency	4.138
Activity	4.442

the  $z$  values obtained for each factor and for each perception by both groups of subjects, athletes and coaches. In the analysis, the probability value of  $z$  taken from Siegel's (1956, p. 247) table was 1.65, established for a one-tailed prediction (Siegel, 1956, p. 69).

For the two concepts perceived by all subjects, women athletes and women coaches, all three factors are significantly different from each other. Furthermore, for each concept, the evaluative factor is perceived as highly saturated in meaning, activity has moderate saturation, and potency has the lowest saturation in meaning. This differs from Griffin's (1972) results. Her subjects' perception of the "woman athlete" was low in saturation in the evaluative factor, and high in saturation of meaning in the potency and activity factors. By contrast, Griffin's "ideal woman" was high in the evaluative factor meaning, and low in potency and activity factors. Brown (1965) also found the feminine girl to be high in evaluative factor saturation of meaning, and low in activity factor; the "woman athlete" was high in activity and low to moderate in the evaluative factor meanings.

The discrepancies in the results of this investigation may be explained in two ways. First, the population for this study is comprised only of women athletes and coaches. Brown's (1965) and Griffin's (1972) subjects were members of general college populations. One might assume that



TABLE 4

z Values for Sign Test for Comparison of Factors in  
Perceptions Held by Women Athletes and by Women Coaches

Comparison of Factors in Perceptions Held by Women Athletes	
Factors	z Value
Of the "Woman Athlete"	
Evaluative with Potency	2.90*
Evaluative with Activity	2.18*
Potency with Activity	2.60*
Of the "Woman Coach"	
Evaluative with Potency	5.15*
Evaluative with Activity	3.32*
Potency with Activity	3.25*
Comparison of Factors in Perceptions Held by Women Coaches	
Factors	z Value
Of the "Woman Athlete"	
Evaluative with Potency	5.36*
Evaluative with Activity	3.87*
Potency with Activity	3.81*
Of the "Woman Coach"	
Evaluative with Potency	3.87*
Evaluative with Activity	2.01*
Potency with Activity	2.62*

\*  $\geq 1.65$  is required z-value for  $p \leq .05$

women athletes and coaches would have more positive self concepts. If, in fact, they regard their own sport involvement favorably and place a value upon it, this would be revealed in the evaluative factor. Perceptions obtained in this study tend to compare with Brown's (1965) and Griffin's (1972) meanings held for the "ideal woman." Hopefully, this is indicative of a changing role for women in sport.

Thus, in terms of significant difference among concepts, four distinct perceptions exist, with women athletes and coaches perceived to be highest in the evaluative factor, moderate in activity, and lower in potency in terms of saturation of meaning. It can then be inferred from this distinctiveness, that each of the four concepts stands alone in semantic space. There is, then, no overlapping of concepts. When placed on the D model, each concept is unique unto itself.

#### Comparison of Concepts

The D matrix in Table 5 shows the distances of all four concepts from each other, and from the origin, or center of semantic space. The D model in Figure 7 and Figure 8 represents the concepts studied and origin on a three dimensional grid.

From the D model, the "woman coach" by women coaches is closest to the origin, indicating less distinctiveness of meaning held for the concept (Osgood, Suci, and Tannenbaum, 1957, p. 97).

TABLE 5  
D Matrix

Concepts	Concepts				
	WA by wa	WA by wc	WC by wa	WC by wc	Origin
(1) WA by wa	-	.336	.187	.271	1.260
(2) WA by wc	-	-	.343	.320	1.369
(3) WC by wa	-	-	-	.131	1.203
(4) WC by wc	-	-	-	-	1.128
(X) Origin	-	-	-	-	-

Note.-Perception of Woman Athlete = WA  
 Perception of Woman Coach = WC  
 Women Athletes = wa  
 Women Coaches = wc

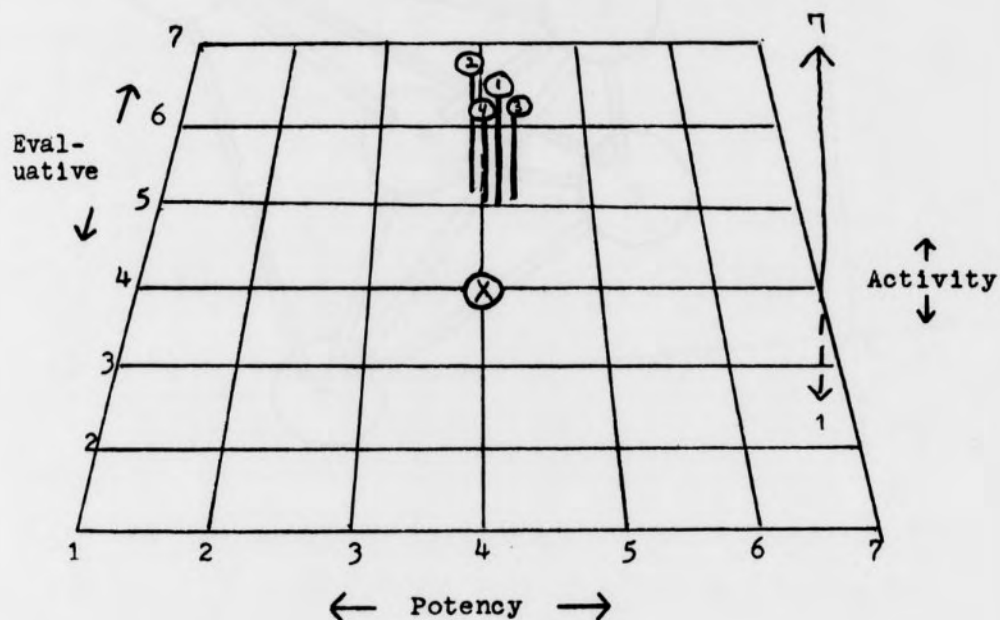


FIGURE 7

D Model on a Three Dimensional Grid

- (1) "Woman Athlete" by Women Athletes
- (2) "Woman Athlete" by Women Coaches
- (3) "Woman Coach" by Women Athletes
- (4) "Woman Coach" by Women Coaches
- (X) Origin

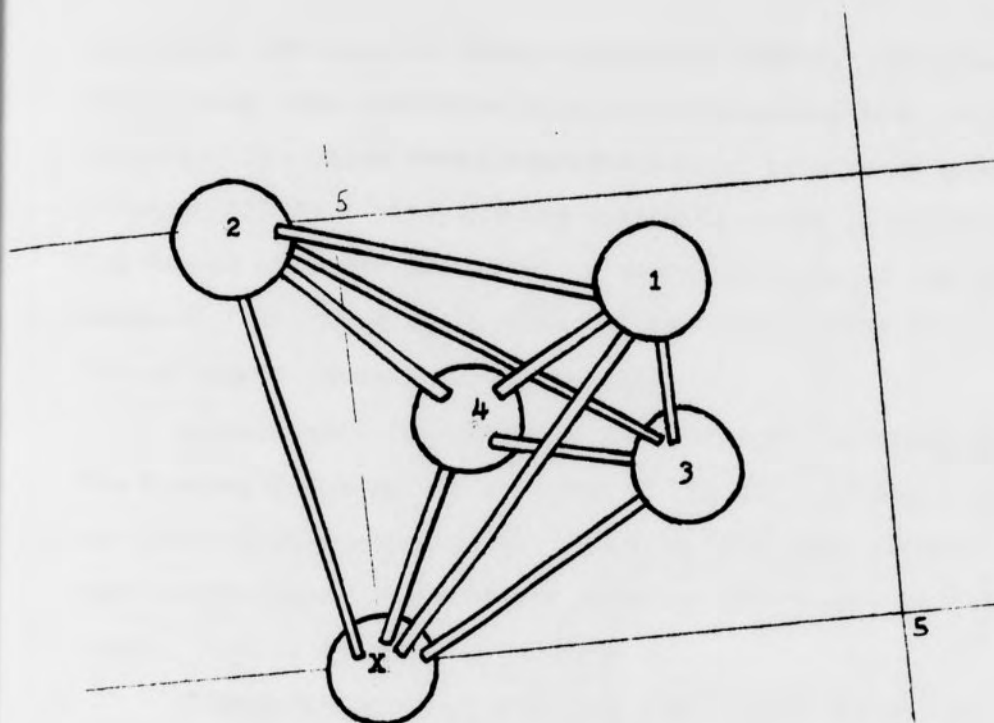


FIGURE 8

Constructed D Model

(Lifted off the Grid)

- (1) "Woman Athlete" by Women Athletes
- (2) "Woman Athlete" by Women Coaches
- (3) "Woman Coach" by Women Athletes
- (4) "Woman Coach" by Women Coaches
- (X) Origin



The "woman athlete" by women coaches is farthest from the origin, and this indicates that it is saturated with more meaning. The other three concepts appear to cluster more, although all four concepts are obviously close in meaning. The "woman athlete" perceived by women athletes is the next farthest from the origin, with the two perceptions of the "woman coach" closest to the origin.

A more specific comparison can be made by studying the D model and D matrix in terms of the four concepts and six possible distances of the concepts from each other that derive from the questions posed at the outset of this study. Such a comparison follows.

"Woman athlete" by athletes with "woman coach" by athletes. Of the four concepts plotted in semantic space, these two are second closest to each other. See concepts numbered 1 and 3 in Figures 7 and 8. Although both are part of a cluster of three concepts with the "woman athlete" as perceived by women coaches outside of the cluster, the "woman athlete" as perceived by athletes has more meaning than the "woman coach" by athletes in terms of distance from the origin.

"Woman athlete" by athletes with "woman athlete" by coaches. These two concepts identified as 1 and 2 in Figures 7 and 8 have the most meaning in terms of distance from origin. The "woman athlete" by athletes is part of the cluster of three concepts while the "woman athlete"

by coaches is outside of this cluster. In terms of distance from each other, these two concepts are the fifth closest of the six possible distances of concepts, thus, they are clearly distinct in meaning.

"Woman athlete" by athletes with "woman coach" by coaches. The distance between these two concepts ranks third closest in terms of the six possible distances. Figures 7 and 8 depict these concepts, 1 and 4. They both are part of the cluster of three concepts appearing closest in meaning. As for distance from origin, the concept of "woman coach" is closest to the origin and the concept of the "woman athlete" is third farthest from the origin, and thus has more distinctiveness in meaning.

"Woman coach" by athletes with "woman coach" by coaches. Of the four concepts, these two, 3 and 4 in Figures 7 and 8, have the least meaning in terms of distance from the origin. They are part of the cluster of three concepts and are closest to each other in terms of the six distances, further indicating similarity in meaning.

"Woman athlete" by coaches with "woman coach" by coaches. These two concepts, 2 and 4 in Figures 7 and 8, represent concepts with the most and least amounts of meaning in terms of distance from the origin. These two concepts are the fourth closest in terms of the six possible

distances among concepts. The "woman coach" is part of the cluster of three concepts while the "woman athlete" is the concept outside of the cluster.

"Woman athlete" by coaches with "woman coach" by athletes. As seen in Figures 7 and 8, these two concepts, 2 and 3, are the farthest distance apart in terms of the six possible distances among perceptions. The "woman athlete" is farthest from the origin and the "woman coach" is the second closest to the origin in overall saturation of meaning. Again, one is outside of the cluster of three concepts and the other is inside the cluster. Thus, their meanings are distinctly different from each other in perspective of the four concepts, although all concepts are closely related.

Thus, in considering the four concepts as they are plotted in semantic space, the perceptions of "woman athlete" by athletes and "woman coach" by athletes, and the two perceptions of coaches are closest in meaning to each other.

Despite the fact that distinct perceptions of coaches are held by athletes and coaches, there is still an indication that they do not hold as much meaning to these women as the concept "woman athlete." This may be due to the fact that coaching for some of the subjects participating in the study may be a relatively new role. There is also the possibility of a lack of distinct meaning of the role as changes in the entire collegiate sport picture are taking place. The

"woman athlete" as perceived by women coaches appears to have the most distinct meaning of all four concepts. This may be exaggerated by the comparative lack of distinction found in the other concepts studied. Or, considering the changes taking place in collegiate sport today, it is the athlete herself whose role is least in a state of transition, according to coaches' perceptions. Surely, there is reason for coaches to be unsure of their own roles.

In summary, the "woman coach" perceived by women coaches holds the least saturation of meaning, while the "woman athlete" as perceived by athletes holds the next largest amount of distinctiveness in meaning. Yet, the concepts are all closely related. Finally, the two concepts of "woman coach" held by women athletes and coaches are closest in distance to each other of the four concepts, indicating least distinctiveness in meaning. Concepts of "woman athlete" by women coaches and "woman coach" by athletes are farthest in distance from each other, showing the most distinctiveness in meaning of the four concepts.

#### Comparison of the Perceptions to a "Real" Person

Through a direct response question, athletes were asked to name the "real" person that came to mind when they thought of the term "coach," and then to designate the relationship, if any, that this person held to the athlete. From this information, the following question was answered:

"Which 'real' person, if any, do athletes think of when they think of the term 'coach?'"

Responses to the names of the coaches were organized into ten broad categories. These are presented in Table 6. One hundred and nine of the 112 subjects responded to this part, with three of the athletes naming two people coming to mind, which then made the total number of responses, 112.

Approximately one third of the respondents in answering the question, think of their former high school coach. Approximately one half of these subjects think of men coaches, while the other half think of women coaches. Athletes describe these people as having been encouraging, caring, competitive, concerned with them as individuals, disciplined, and a great help in contributing to their athletic successes.

Another one third of the respondents think of their present coach. In this category, there are many more women coaches. Only slightly more than one fifth of this group refer to their present coach as a male. Two teams participating in the study have male coaches; all seven of the responses identifying a male come from one of these teams. Present coaches are described as caring, interested, friends, easy to talk with, concerned, and representing more than a coach-athlete relationship.

The last third of the data is divided among the remaining eight categories. Two subjects think of former



TABLE 6  
Direct Response Data

"Real" Person	N	%
Former High School Coach		
Male	19	16.964
Female	20	17.857
Combined	39	34.821
Present Coach		
Male	7	6.250
Female	29	25.893
Combined	36	32.143
Former College Coach	2	1.786
College Coach of a Different Sport and/or Member of That Team	3	2.679
College Professor	6	5.357
Family		
Father	4	3.571
Brother	2	1.786
Sister	1	.893
Friends	3	2.679
Individuals (10)	16	14.286

N = 112

college coaches. These coaches are considered to be nice, warm, explaining, and not a victim of "brown nosing" by members of the team. Three subjects mention college coaches of different teams of which the individual also is a member. Six subjects mention college professors that are admired, although the individual is not associated with their athletic teams. Three responded by indicating friends, commenting on the leadership abilities of these people. Four subjects named their fathers, suggesting that these parents have also coached or taught them. One named a sister, and two named brothers. Sixteen subjects mentioned ten individuals who either helped them, or are generally admired. Some of these individuals are men coaches of well known college teams. One is a woman coach of a women's team training for the Olympics. A few are Olympic swimmers or basketball players. Another individual cited was the Head of the Athletic Department. Two subjects mentioned God, in the role of a companion, trustworthy, and dedicated individual.

These data yield interesting information. For example, many athletes mention that the coach they named was their first coach, indicating that this person had relatively strong influences upon them. Second, some of the athletes commented that they had kept the designated individual in mind during the process of responding to Part I of the test. Thus, it appears that either the present or the former coach is somewhat important in forming individual's

perceptions of coaches in general. However, it must also be stated that some subjects mentioned that they did not think of anyone specifically while responding to Part I.

Well over two thirds of the subjects mentioned coaches in their lives as partially influencing the meanings they hold for the concepts. Surprisingly, only sixteen subjects perceived "well known" coaches when they thought of the term "coach."

As the literature suggests, more women coaches are needed (Hartman, 1968; Neal, 1969, 1970; Spasoff, 1971). Also, the suggestions that the coach-player relationship (Ogilvie and Tutko, 1971; Porter, 1972; Singer, 1972) is an important one, is reinforced by the data collected in response to question seven of this study.

Finally, a general list of admired traits of coaches emerges. These include the coach as being a close friend, warm, not accepting "brown nosing," trustworthy, dedicated, able to unify the team, disciplined, relating to the individual, competitive, a leader, interested, and concerned.

#### Summary

In summary, the results of this study indicate that the "woman athlete" as perceived by women athletes, the "woman athlete" as perceived by women coaches, the "woman coach" as perceived by women athletes, and the "woman coach" as perceived by women coaches are four distinct concepts,

although they are closely related. All concepts show highest meaning in distinctiveness in Griffin's (1972) evaluative factor, followed by the activity, and then the potency factors.

The "woman athlete" as perceived by women coaches holds the most saturation in meaning. "Woman athlete" as perceived by women athletes is next in saturated meaning. Both concepts of the "woman coach" are comparatively low in saturated meaning. In terms of distance in semantic space, the two concepts of "woman coach" perceived by athletes and coaches are closest in meaning, showing less distinctiveness between the two. The "woman athlete" by coaches and the "woman coach" by athletes are the farthest apart from each other in semantic space of the four concepts.

The data permit one to infer that the traditional feminine image still exists, although one may discern a slight shift that may be explained by increased involvement and acceptance of women in sport. This generalization is suggested by the slightly above neutral location of the feminine scores away from the masculine end of the masculinity-femininity scale, and also by the high evaluative scores. These fit in with the "ideal woman" described by Brown (1965) and Griffin (1972). In comparing the same concepts as perceived by athletes separately from coaches, the findings point out that coaches perceive a greater difference between the two concepts than athletes. Neither

group perceives differences in the evaluative factor between concepts. Finally, two thirds of the subjects thought of "real" coaches involved in their own personal lives when they responded to the direct question which sought to identify a particular individual.



CHAPTER V  
SUMMARY AND CONCLUSIONS

Summary

Purpose

The purpose of this investigation was to determine the perceptions of the concepts, "woman athlete" and "woman coach," as held by a selected sample of women athletes and women coaches. Specifically, the investigation sought to answer the following questions:

1. How do women athletes perceive "woman athlete"?
2. How do women athletes perceive "woman coach"?
3. How do women coaches perceive "woman athlete"?
4. How do women coaches perceive "woman coach"?
5. Do the perceptions of these concepts differ for women athletes and women coaches?

"Woman athlete" with "woman coach" by women athletes

"Woman athlete" with "woman coach" by women coaches

6. How do these perceptions compare?

"Woman athlete" by women athletes with  
"woman coach" by women athletes

"Woman athlete" by women athletes with  
"woman athlete" by women coaches

"Woman athlete" by women athletes with  
"woman coach" by women coaches

"Woman coach" by women athletes with  
 "Woman coach" by women coaches

"Woman athlete" by women coaches with  
 "woman coach" by women coaches

"Woman athlete" by women coaches with  
 "woman coach" by women athletes

7. Which "real" person, if any, do athletes think of when they consider the term "coach"?

### Procedures

Review of literature. A careful review of related literature provides the following background information relating to this investigation. (1) Self concepts increase or decrease as the perceived evaluations held by "significant others" increases or decreases (Kipnis, 1961; Maehr, Mensing, and Nafzger, 1962; Reeder, Donohue, and Biblarz, 1960). Women show a greater need for social acceptance than men (Becker and Dileo, 1967).

(2) Traditional sex-role stereotypes exist (Brown, 1965; Griffin, 1972; Lipman-Blumen, 1972). Women feel that men want them behaving in the traditional role, i.e., passive and in the home, although women perceive themselves to be balanced between the traditional and the more modern role, i.e., assertive and achieving (Steinmann, 1963; Steinmann and Fox, 1966, 1969). Both sexes value the masculine stereotype more than the feminine stereotype (Broverman, et al., 1970). (3) The traditional sex role stereotype for women is beginning to change. Some researchers are questioning

the use of masculinity-femininity scales (Bott, 1970; Jenkin and Vroegh, 1969).

(4) The traditional sex role stereotype still appears to influence women's acceptance into sport. There are differences with males in sport facilities and jobs. In only certain aspects of sports, women are granted approval (Brown, 1965; Griffin, 1972; Hart, 1971, 1972). (5) There is also evidence to support some increased acceptance of more women in sport (Higdon and Higdon, 1967; Sherriff, 1971; Klafs and Lyon, 1973). Those involved in sport tend to have a more favorable opinion of women's participation in sport (Harres, 1968; Malumphy, 1970).

(6) Men's opinions are important to women. Men do not appear to disfavor women's participation in sport, although they are cautious in their full acceptance of this participation (Bowen, 1967; Debacy, Spaeth, and Busch, 1970; Harris, 1971b).

(7) There is limited information about women coaches per se. The literature emphasizes a need for the coach to know herself and to recognize the importance of the coach-player relationship. There is also evidence that coaches do not know their players as well as they think they do. In regard to women coaches, literature emphasizes the need for training (Moore, 1962; Malumphy, 1971; Porter, 1972; Singer, 1972).

Selection of subjects and data gathering. Subjects included 48 women coaches of swimming, tennis, and basketball, active member teams in the SIAW, and 112 women athletes of the above teams participating only in North Carolina. All subjects responded to Part I of the study, which consisted of two semantic differential forms--one for each of the concepts "woman athlete" and "woman coach"--and a cover sheet of directions.

Data were collected both through the mail and by the investigator directly, when feasible, during the winter and spring of 1973. The semantic differential scales were taken from Griffin (1972). These scales were previously tested by Griffin for reliability. They were considered valid and objective in terms of Osgood's (Osgood, Suci, and Tannenbaum, 1957) criteria that his instrument was acceptable on face validity and had reproducible results (Griffin, 1972, p. 39).

Athletes were also requested to respond to Part II, which consisted of a Direct Response Question. Subjects were asked to designate the "real" person who came to mind when they thought of the term "coach," and to tell the relationship, if any, of that person to themselves.

Analysis of data. Analyzing the data involved the following statistical procedures: (1) profile analysis of the four concepts to determine perceptions, (2) sign test to determine significance of difference of difference between and

among factors for each concept, (3) D matrix and D model to compare the relationship of all four concepts with other and to the origin, or center of semantic space, and (4) tabulation of responses for Direct Response Question data.

### Conclusions

Meanings held for the terms "woman athlete" and "woman coach" by women who fulfill these sport roles was determined, in this study, by the semantic differential. Data permit the following answers to questions that frame the investigation.

#### Perception of "Woman Athlete" and "Woman Coach"

##### Perception of "woman athlete" by women athletes.

("How do women athletes perceive "woman athlete"?) In answering this question, profile analysis indicates that the "woman athlete" is perceived to be slightly attractive, relaxed, feminine, affectionate, competitive, experimental, and fast. She is considered to be quite interesting, nice, and intelligent. There are no extreme scores in this perception.

##### Perception of "woman coach" by women athletes.

("How do women athletes perceive "woman coach"?) Profile analysis shows the "woman coach" to be slightly relaxed, affectionate, competitive, experimental, and fast. There are no extreme scores, although the "woman coach" is considered to be quite interesting, nice, and intelligent.



Perception of "woman athlete" by women coaches.

("How do women coaches perceive "woman athlete"?) The profile of the "woman athlete" as perceived by women coaches shows sportswomen to be slightly attractive, interesting, sexually attractive, relaxed, feminine, intelligent, affectionate, competitive, and experimental. There are mean scores of quite nice and fast, although there are no means which fall at the extreme ends of the continuum. This concept holds the least number of neutral scores, showing more distinctiveness in meaning.

Perception of "woman coach" by women coaches.

("How do women coaches perceive "woman coach"?) Profile analysis reveals that women coaches perceive the "woman coach" to be slightly attractive, interesting, nice, feminine, affectionate, competitive, and fast. There are also no extreme means, although the term intelligent is valued at the quite category on the interpretive scale. This concept has the most neutral scores, indicating least distinctiveness in meaning of those studied.

Comparison of Perceptions Through Profile Analysis

By profile analysis, a general comparison of all four concepts permits the following conclusions. First, all four concepts follow the same profile pattern with a general balance between the neutral and slightly X or Y responses. There are no extreme scores among concepts.

Meanings held for the concepts by subjects, then, are similar and follow a very middle-of-the-road pattern.

Differences Among Factors Comprising the Perceptions of  
"Woman Athlete" and "Woman Coach"

The sign test was applied to determine the significance of difference among the three factors for each of the concepts as perceived by athletes and by coaches. The following answers were found to the question, "How do the perceptions of these concepts differ for women athletes and women coaches?-- 'Woman athlete' with 'woman coach' by women athletes, and 'woman athlete' with 'woman coach' by women coaches."

There is no significant difference between evaluative and between potency factors of the concepts "woman athlete" and "woman coach" as perceived by women athletes. However, there is a significant difference for the activity factor of the two concepts as meaning for them is assigned by women athletes.

For the conceptions of the "woman athlete" and "woman coach" held by women coaches, there is no significant difference between evaluative factors. However, there is a significant difference between potency and between activity factor scales.

In accord with Osgood's ideas about the semantic differential, meanings are interpreted as similar in factors where there are no significant differences. In contrast, obtained significant differences reflect discrepancies in factor meanings.

In terms of distance of factors from the origin or center, potency factors for concepts of "woman athlete" and "woman coach" held by women coaches have the same amounts of distinctiveness in meaning, while the activity factor for "woman athlete" is more distinct in meaning than for "woman coach" as perceived by women coaches. Activity factors for "woman athlete" are also farther from the origin than for "woman coach" as perceived by women athletes, indicating more distinctiveness in meaning for "woman athlete."

Models in Semantic Space of Meanings Held for "Woman Athlete" and "Woman Coach"

("How do these perceptions compare?--'woman athlete' by women athletes with 'woman coach' by women athletes, 'woman athlete' by women athletes with 'woman athlete' by women coaches, 'woman athlete' by women athletes with 'woman coach' by women coaches, 'woman coach' by women athletes with 'woman coach' by women coaches, 'woman athlete' by women coaches with 'woman coach' by women coaches, 'woman athlete' by women coaches with 'woman coach' by women athletes.")

To formulate a comparison of the meanings of the four concepts as totalities, the distinctiveness of each concept was first assessed. Then the D matrix and D model were plotted. The following responses are offered to the question of comparison.

Distinctiveness of concepts. The sign test was applied in order to compare the three factors comprising each concept as perceived by women athletes and by women coaches. This made it possible to locate the perceptions in semantic space. All three factors for each of the four concepts are significantly different from each other, indicating the existence of four distinct perceptions with no overlapping.

Comparison of concepts. The distance formula was applied to pairs of concepts and to concepts from the origin, or center of semantic space to form a D matrix. From this D matrix and with the means of the factors, the D model was plotted.

The locations of these concepts on the D model determine distinctiveness in meaning in two ways. First, the closer the concept lies to the origin, or center of semantic space, the less distinct its meaning is in terms of distance from the peripheries of semantic space, or areas of greater saturation in meaning. The four concepts are all very close to each other. However, the two concepts of the "woman coach" held by athletes and coaches, and the concept of the "woman athlete" held by athletes form a cluster closer to the origin than the "woman athlete" by women coaches. The "woman coach" as perceived by coaches is closest to the origin, then, and least saturated with meaning. "Woman coach" as perceived by athletes is next least

saturated with meaning; then the "woman athlete" by athletes shows more saturation. Finally, the "woman athlete" as perceived by coaches shows the most saturation in meaning of all four concepts.

The second way to observe distinctiveness in meaning of the concepts is to compare their distances with each other. The closer the concepts are to each other in semantic space, the less distinct their meanings are in relation to each other. The two concepts of "woman coach" as perceived by athletes and coaches in this study, are closest in distance to each other, indicating the least amount of difference in meaning among six possible inter-distances of the four concepts. "Woman athlete" as perceived by women coaches and "woman coach" as perceived by women athletes have the greatest distance from each other, showing the most difference in meaning to each other. The other four distances which were examined indicate that the two concepts held by women athletes are second closest in distance. The "woman coach" by coaches and the "woman athlete" by athletes concepts are third closest in distance. The "woman athlete" by coaches with the "woman coach" by coaches is fourth closest. Finally, the two concepts of "woman athlete" held by coaches and by athletes are fifth closest in distance to each other. However, all four concepts are closely related in meanings discerned by subjects in this study.



### Comparison of the Perceptions to a "Real" Person

("Which 'real' person, if any, do athletes think of when they consider the term 'coach?'" ) When asked to respond to this question, two thirds of the athletes name coaches involved in their lives at one time or another. Approximately half of these individuals are former high school coaches and the other half, present coaches. The high school coaches, considered in relation to sex, are half males and half females. College coaches identified as the "real" coach include only one fifth men and the rest women. The final third of the data included names of members of the family, friends, college professors, and Olympic athletes or coaches. Along with these "real" coaches, some athletes include descriptions of desirable qualities they have most admired in these people, i.e., caring, competitive, helpful, concerned, and dedicated. Finally, some athletes mention that they had thought of this coach while responding to the semantic differential; others mention that they had thought of no coach in particular during the process of completing the semantic differential form.

### Discussion

The findings of this study warrant several comments. First, it is not surprising that women athletes and women coaches perceive the "woman athlete" and the "woman coach" to be similar in meaning, but at the same time, distinct

from each other. Despite similarities, however, the "woman athlete" as perceived by coaches holds the most distinct meaning, while the women coaches' perception of meaning of their own roles is least distinctive. "Woman athlete" by women coaches and "woman coach" by women athletes are the greatest distance from each other of the four concepts. The two concepts of "woman coach" held by athletes and coaches, on the other hand, are the closest in distance of the four concepts, indicating the most similarity in meaning of all four concepts.

Perhaps this can be explained by the continuation of interest and involvement in sport over a period of years. Most likely, women coaches were also athletes. Upon finishing this player experience, they serve in a second role, that of the coach. Possibly the earlier experience has taken on distinct meaning, while the second one, coach, is still uncertain. Few athletes also have opportunity to coach. They become aware of meanings associated with the coaching role only by observing coaches and by being coached. Thus, the three concepts involved in the cluster of closely related concepts, that is, those found to have less saturation of meaning, are perceptions with which subjects are either presently involved as active participants, or as in the case of the "woman coach," are directly involved in ongoing athletic endeavors. The one distinct concept, in contrast, is the one where subjects had prior experience and now are

able to perceive the role separate from themselves, as in the case of the "woman athlete" as perceived by coaches. In other words, the clearly distinct concept may be associated with some role connotations that are terminated and have perhaps, been tempered with the passage of time.

Given the growing and somewhat confused picture of womens' athletics in colleges today, and what the future holds for these programs, the comparative lack of clarity and distinctiveness in the meaning of the term coach is further understandable. These perceptions are probably influenced by the present status of the changing role of women in society as well as some confusion about expanded athletic opportunities for women in institutions of higher education. For the coach fulfilling her professional role, and the athlete having never been in the role, it is difficult to "step away" and formulate a distinct perception. It is apparent that these subjects wonder about the nature of the role of woman coach at this particular period of time. She cannot be considered as the "win at all costs and kill them" type, nor the sportsday "lets not bother to keep score" leader. The findings of this research suggest that these coaches are not sure how they should act. Such being the case, it follows that the athlete is not consistently sure of what she is seeing as she observes and performs under the leadership of her coaches.

Further understanding of this point of view is discerned by noting that the perceptions of all four concepts are middle-of-the-road. There are no extreme scores. Of the fifteen scales, only four extended beyond the "slightly" classification into "quite."

All four concepts have relatively low femininity scores as opposed to masculinity, indicating that either the traditional sex role stereotype, i.e., sports not being feminine, is influencing the women athletes and coaches who served as subjects, or they, in fact, consider these roles as being only slightly feminine. However, this may also be an indication of a possible shift from the traditional concept of sports being strictly masculine to the present day concept of many things being equally acceptable for both sexes, or the idea of unisex. There is a place for such an explanation, given the data collected in this study.

Along this line, the scores making up the evaluative factor are the highest for all concepts, with activity and potency being lower in saturation of meaning. These results support the conceptualizations of the "ideal woman" described in studies by Brown (1965) and Griffin (1972). In turn, statements in current literature which indicate that women's role in sport is shifting are also supported. Furthermore, this finding is consistent with reported research that

those involved in sport tend to have higher opinions of women in sport than those not involved in sport.

Women athletes also described qualities they admire in coaches. When naming the "real" coach coming to mind, it was surprising that two thirds identified coaches directly involved in their personal lives, and not coaches of well known teams. Reality, not fantasy, is therefore an influence on women athletes. This finding also indicates the possible influence of the coach as the "significant other" in the lives of these athletes. Thus, as the literature discusses, the perceived evaluations by these coaches toward the athletes could have a strong influence on their performances.

There are several implications for communication between athlete and coach, and for providing the best possible learning experiences for the developing performer. An athlete probably spends as much time around the coach during a sport season as around anyone else. Thus, there is an ever-present potential to exert an influence upon each other--either personally or in terms of role fulfillment. What seems to be important in this regard is that communication is a two-way phenomenon. A coach who works her team hard, is fair, and has her athletes' interests at heart, can only be effective if she is perceived that way by members of her team. The same is true for the striving and proud sportswoman. Unless her coach is aware of the dedicated



efforts being put forth, she may misinterpret the player's interest and style. Mutual respect, confidence, shared goals, and ultimate success in the season's schedule is only possible if open communication, two-ways, is established and an atmosphere of meaningful understanding is created and maintained by coaches and players alike. This, it seems, is the supreme challenge to every coach and player who sees in sport, a vehicle for enriching ones life.

It is proposed that specific steps be taken by coaches to gather information on which to develop open communications with players. For the coach, the semantic differential, which is capable of determining meaning in a general way, is a potentially valuable instrument for providing an assessment of the general perceptions of team members and of herself. With tact and skill, the results of this measurement can be used to improve understandings among and between team members. In the process, both athletes and coaches, can learn a little more about themselves and each other in these sport roles.

Finally, the results of this research and the above discussion add support to the previously stated need for better trained women coaches. Superior performance, an atmosphere which nurtures individual growth and self realization, and desirable competitive sport programs will not just happen because womens' athletics in colleges and universities are receiving more attention. It will

take highly skilled leadership and commitment to the values inherent in competitive sports for females to achieve the above goals. People must be educated for these responsibilities.

#### Suggestions for Future Study

Additional research is needed about women athletes and coaches. We need an in-depth understanding of these roles. Information from a study of the nature of the present investigation contributes only minimally to our knowledge about women's changing role in sport, self-conceptions, perceptions of others, influences of these perceptions on others.

Specifically relating to the testing procedures followed in this investigation, several suggestions are recommended relative to future administration. First, since respondents tend to interpret numbers on the semantic differential forms as values, all numbers should be omitted on the directions.

Second, several respondents commented on the lack of clarity in concepts. They were uncomfortable with the terms, "woman athlete" and "woman coach." More specificity was requested, i.e., "athlete in games," or "athlete in daily situations."

Finally, several respondents questioned some of the scales as being ambiguous and interpretative in meaning.

In particular, subjects had difficulty in determining distinctiveness in the cooperative-competitive scales. Others had trouble with the experimental-conservative scales. Revision of the items that make up the potency scales is also suggested, based on the number of neutral scores consistently found on all concepts.

In other words, the use of the semantic differential, specifically Griffin's (1972) scales, must be considered as one way to increase our understandings of meanings associated with the competitive sport scene. New scales, other instruments, and different approaches should be attempted.

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## APPENDIX A

## CORRESPONDENCE

## DETERMINING STUDY SAMPLE

Box 6715  
University of North Carolina  
Greensboro, North Carolina 27412  
January 24, 1973

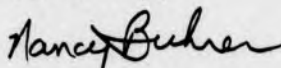
Address of Coach

Ms.

As part of my study for the master's degree in physical education at the University of North Carolina at Greensboro, I am investigating the perceptions of the concepts "woman athlete" and "woman coach," that are held by selected collegiate personnel. A paper and pencil test, the semantic differential, is providing the data for the research. This test takes approximately twenty minutes to administer and complete. It is a relatively simple device for registering ones views.

As a member of the AIAW Region II, your school falls in my selected sample. The purpose of this letter is to determine if you will assist in carrying out the investigation. Please complete and return the enclosed post card as soon as possible, indicating your willingness to participate. Your help will be greatly appreciated.

Sincerely,



Nancy Buhrer

Enclosure: post card

## ENCLOSED SELF-ADDRESSED POST CARD

Name of Coach  
Name of School and Team

Please indicate with check:

I will be willing to participate in the study:  
YES \_\_\_\_\_ NO \_\_\_\_\_

Please send me 1 test for myself and \_\_\_\_\_  
tests for my team.

Comment:

Thank you,  
Nancy Buhrer

## FOR COACHES WITH PARTICIPATING TEAMS

Box 6715  
University of North Carolina  
Greensboro, North Carolina 27412  
February 5, 1973

Address of Coach

Ms.

Thank you for your statement of willingness to participate in my study. I sincerely appreciate your help. The data collecting involved necessitates two sets of materials, each to be treated separately. The first part consists of the directions and two attached pages. The second portion, a "cover sheet," will provide me with general information. It is very important that Part II be administered after Part I has been completed and returned to you by the respondents. This is designed to give assurance that the "cover sheet" will not influence the responses to Part I.

Your copy of the test is labeled "Coach" and you may complete this whenever you are ready. Coaches are requested to respond to Part I only.

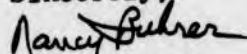
The recommended procedure for administering the test involves assembling all athletes. Then:

- 1) Distribute Part I only.
- 2) Have the students read the directions carefully and respond to the test immediately.
- 3) When Part I is returned, students should exchange this for Part II.
- 4) After collecting the second portion of the response form, place all materials in the enclosed envelope and mail as soon as possible.

The numbering on the test is strictly for my purposes of coding. Be assured that your reply is being considered as confidential.

I greatly appreciate your cooperation and promptness.

Sincerely,



Nancy Buhner

Enclosure: Parts I, II; directions; self-addressed envelope



## FOR COACHES WITHOUT PARTICIPATING TEAMS

Box 6715  
University of North Carolina  
Greensboro, North Carolina 27412  
February 5, 1973

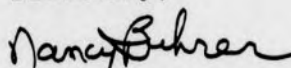
Address of Coach

Ms.

Thank you for your statement of willingness to participate in my study. Enclosed is a copy of the test with directions attached. Please respond and return it in the enclosed envelope as soon as possible. The numbering on the test is strictly for my purposes of coding. Be assured that your reply is being considered as confidential.

I greatly appreciate your cooperation and promptness.

Sincerely,



Nancy Buhrer

Enclosure: Part I; directions; self-addressed envelope

## DATA GATHERING INSTITUTIONS

Appalachian State University  
 Averett College

Brigham Young College

Clark College  
 College of William and Mary

East Carolina University  
 East Tennessee State University  
 Eastern Kentucky University  
 Eastern Washington College

Florida University

Illinois College

Indiana College

Longwood College

Longwood College

Marshall College

Marshall College

Marshall College

Marshall College

Marshall College

Marshall College

Marshall College

Marshall College

University of Kentucky

University of Louisville

University of North Carolina at Chapel Hill

University of North Carolina at Greensboro

University of North Carolina

University of Tennessee at Knoxville

University of Tennessee at Martin

Virginia Polytechnic Institute

West Virginia University

West Virginia College

## APPENDIX B

## DATA GATHERING INSTITUTIONS

## AFFILIATIONS OF ATHLETES AND COACHES

## DATA GATHERING INSTITUTIONS

Appalachian State University  
Averett College

Bridgewater College

Coker College  
College of William and Mary

East Carolina University  
East Tennessee State University  
Eastern Kentucky University  
Eastern Mennonite College

Furman University

Hollins College

Lander College  
Longwood College  
Lynchburg College

Madison College  
Mars Hill College  
Mary Washington College  
Memphis State University  
Middle Tennessee State University  
Milligan College  
Murray State University

Radford College  
Randolph-Macon Women's College

University of Kentucky  
University of Louisville  
University of North Carolina at Chapel Hill  
University of North Carolina at Greensboro  
University of South Carolina  
University of Tennessee at Knoxville  
University of Tennessee at Martin

Virginia Polytechnic Institute

Western Carolina University  
Winthrop College

## ATHLETES' AFFILIATIONS

Basketball

Appalachian State University (9 members)  
Mars Hill College (12 members)  
University of North Carolina at Greensboro (14 members)  
Western Carolina University (10 members)

Tennis

Appalachian State University (12 members)  
Mars Hill College (8 members)  
University of North Carolina at Chapel Hill (13 members)  
University of North Carolina at Greensboro (11 members)

Swimming

Appalachian State University (15 members)  
East Carolina University (9 members)  
University of North Carolina at Greensboro (9 members)

## COACHES' AFFILIATIONS

Appalachian State University (Basketball, Tennis)  
Averett College (Basketball)

Bridgewater College (Basketball, Tennis)

Coker College (Basketball, Tennis, Swimming)  
College of William and Mary (Basketball, Tennis, Swimming)

East Tennessee State University (Basketball, Tennis)  
Eastern Kentucky University (Basketball, Tennis)  
Eastern Mennonite College (Basketball)

Furman University (Basketball)

Hollins College (Basketball, Tennis, Swimming)

Lander College (Basketball)  
Longwood College (Tennis, Swimming)  
Lynchburg College (Basketball)

Madison College (Tennis)  
Mars Hill College (Basketball, Tennis)  
Mary Washington College (Basketball, Tennis, Swimming)  
Memphis State University (Basketball, Tennis, Swimming)  
Middle Tennessee State University (Basketball)  
Milligan College (Basketball, Tennis, Swimming)  
Murray State University (Basketball)

Radford College (Basketball)  
Randolph-Macon Women's College (Basketball, Tennis, Swimming)

University of Kentucky (Swimming)  
University of Louisville (Basketball)  
University of North Carolina at Chapel Hill (Tennis)  
University of North Carolina at Greensboro (Basketball,  
Tennis, Swimming)  
University of South Carolina (Basketball, Tennis)  
University of Tennessee at Knoxville (Basketball)  
University of Tennessee at Martin (Basketball, Tennis)

Virginia Polytechnic Institute (Basketball, Tennis)

Western Carolina University (Basketball)  
Winthrop College (Basketball, Tennis)

Note.-Several sports were coached by the same individual. Coaches only responded once to the semantic differential forms.



## APPENDIX C

## SAMPLE INSTRUMENT

## Part I

Instructions: The purpose of this study is to measure the meaning of different concepts to different people by having them rate these concepts on a series of descriptive scales. Make your own judgments. What does each concept mean to you. Each page has a different concept and a set of scales. You are to rate each of these scales in order.

Here is how you are to use these scales.

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

Fair    ✓ : 2 : 3 : 4 : 5 : 6 : 7    Unfair

Fair    1 : 2 : 3 : 4 : 5 : 6 : ✓    Unfair

If a concept seems quite closely related to one end or the other, but not extremely so, you should place your check-mark as follows:

Tall    1 : ✓ : 3 : 4 : 5 : 6 : 7    Short

Tall    1 : 2 : 3 : 4 : 5 : ✓ : 7    Short

If a concept seems only slightly related to one side or the other, then you should check as follows:

Safe    1 : 2 : ✓ : 4 : 5 : 6 : 7    Dangerous

Safe    1 : 2 : 3 : 4 : ✓ : 6 : 7    Dangerous

If you consider a concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if you feel that the scale is completely irrelevant, then place your check mark in the middle space as follows:

Neat    1 : 2 : 3 : ✓ : 5 : 6 : 7    Sloppy

- Important:
1. Place your check-marks in the middle of the spaces, not on the boundaries.
  2. Be sure you check every scale for every concept. Do not leave any scale blank.
  3. Do not put more than one check-mark on a single scale.
  4. Do not look back to see how you checked similar items for a previous concept. Make sure each concept is a separate and independent judgment.
  5. Work quickly, but do not look ahead to the next concept until you have completed the one before.
  6. Try not to be careless. Your true impression of each concept is important.
  7. Please disregard the numbers in each space. They are for scoring purposes only.

## WOMAN ATHLETE

Attractive	___:___:___:___:___:___:___	Unattractive
Boring	___:___:___:___:___:___:___	Interesting
Thick	___:___:___:___:___:___:___	Thin
Relaxed	___:___:___:___:___:___:___	Tense
Sexually Attractive	___:___:___:___:___:___:___	Sexually Unattractive
Nice	___:___:___:___:___:___:___	Awful
Soft	___:___:___:___:___:___:___	Loud
Feminine	___:___:___:___:___:___:___	Masculine
Unintelligent	___:___:___:___:___:___:___	Intelligent
Cold	___:___:___:___:___:___:___	Affectionate
Soft	___:___:___:___:___:___:___	Hard
Competitive	___:___:___:___:___:___:___	Cooperative
Heavy	___:___:___:___:___:___:___	Light
Experimental	___:___:___:___:___:___:___	Conservative
Slow	___:___:___:___:___:___:___	Fast

## WOMAN COACH

Attractive	__ : __ : __ : __ : __ : __ : __	Unattractive
Boring	__ : __ : __ : __ : __ : __ : __	Interesting
Thick	__ : __ : __ : __ : __ : __ : __	Thin
Relaxed	__ : __ : __ : __ : __ : __ : __	Tense
Sexually Attractive	__ : __ : __ : __ : __ : __ : __	Sexually Unattractive
Nice	__ : __ : __ : __ : __ : __ : __	Awful
Soft	__ : __ : __ : __ : __ : __ : __	Loud
Feminine	__ : __ : __ : __ : __ : __ : __	Masculine
Unintelligent	__ : __ : __ : __ : __ : __ : __	Intelligent
Cold	__ : __ : __ : __ : __ : __ : __	Affectionate
Soft	__ : __ : __ : __ : __ : __ : __	Hard
Competitive	__ : __ : __ : __ : __ : __ : __	Cooperative
Heavy	__ : __ : __ : __ : __ : __ : __	Light
Experimental	__ : __ : __ : __ : __ : __ : __	Conservative
Slow	__ : __ : __ : __ : __ : __ : __	Fast

## Part II General Information

To Be Completed After Part I

Please check the team(s) with which you are presently affiliated:

Basketball \_\_\_\_\_ Swimming \_\_\_\_\_ Tennis \_\_\_\_\_

Please name the "real" person who comes to mind when you think of the term coach.

\_\_\_\_\_

Identify, as specifically as possible, your relationship, if any, to this individual, i.e., your kindergarten teacher, your grandmother, etc.



## APPENDIX D

## INSTRUMENT FOR SCORING PURPOSES

## WOMAN ATHLETE

Attractive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Unattractive (E)
Boring	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Interesting (E)
Thick	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Thin (P)
Relaxed	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Tense (A)
Sexually Attractive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Sexually Unattractive (E)
Nice	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Awful (E)
Soft	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Loud (A)
Feminine	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Masculine (P)
Unintelligent	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Intelligent (P)
Cold	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Affectionate (E)
Soft	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Hard (P)
Competitive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Cooperative (A)
Heavy	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Light (P)
Experimental	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Conservative (A)
Slow	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Fast (A)

Note.- (E) = Evaluative Factor  
(P) = Potency Factor  
(A) = Activity Factor

## WOMAN COACH

Attractive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Unattractive (E)
Boring	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Interesting (E)
Thick	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Thin (P)
Relaxed	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Tense (A)
Sexually Attractive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Sexually Unattractive (E)
Nice	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Awful (E)
Soft	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Loud (A)
Feminine	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Masculine (P)
Unintelligent	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Intelligent (P)
Cold	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Affectionate (E)
Soft	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Hard (P)
Competitive	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Cooperative (A)
Heavy	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Light (P)
Experimental	<u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Conservative (A)
Slow	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u>	Fast (A)

Note.- (E) = Evaluative Factor  
(P) = Potency Factor  
(A) = Activity Factor

APPENDIX E  
STATISTICAL FORMULAS USED IN ANALYSIS

1. Sign Test Formula<sup>1</sup>

$$z = \frac{(x \pm .5) - \frac{1}{2}N}{\frac{1}{2} \sqrt{N}}$$

Note.- x = number of plus or minus signs  
 N = number of matched pairs having a  
 sign in the difference  
 Use x + .5 when  $x < \frac{1}{2}N$   
 Use x - .5 when  $x > \frac{1}{2}N$

2. Generalized Distance Formula for D Matrix and D Model<sup>2</sup>

$$D_{11} = \sqrt{\sum_j d_{11}^2}$$

Note.-  $D_{11}$  = linear distance in semantic space  
 between concepts represented by  
 points  $\underline{1}$  and  $\underline{1}$   
 $d_{11}$  = algebraic difference between  
 coordinates of two concepts,  $\underline{1}$   
 and  $\underline{1}$ , on the same factor or  $\underline{j}$   
 $j$  = a factor  
 $\Sigma$  = sum of

---

<sup>1</sup>Siegel, S., Nonparametric Statistics for the Behavioral Sciences, New York: McGraw-Hill, 1956, pp. 71, 72.

<sup>2</sup>Osgood, C., Suci, G., and Tannenbaum, P., The Measurement of Meaning, Urbana: University of Illinois Press, 1957, p. 91.



## APPENDIX F

## RAW DATA

Note.-WA = Women athlete subjects

WC = Women coach subjects

Scales

A-U = Attractive-Unattractive

B-I = Boring-Interesting

T-T = Thick-Thin

R-T = Relaxed-Tense

S-S = Sexually Attractive-Sexually Unattractive

N-A = Nice-Awful

S-L = Soft-Loud

F-M = Feminine-Masculine

U-I = Unintelligent-Intelligent

C-A = Cold-Affectionate

S-H = Soft-Hard

C-C = Competitive-Cooperative

H-L = Heavy-Light

E-C = Experimental-Conservative

S-F = Slow-Fast

## SCORES FOR PERCEPTION OF "WOMAN ATHLETE" BY WOMEN ATHLETES

Sub- ject	Scales															
	WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
1	4	6	4	2	4	5	5	5	4	6	6	4	6	4	6	6
2	6	6	4	5	3	4	7	6	2	6	5	5	6	5	7	6
3	4	4	5	3	4	5	4	4	4	4	4	7	5	5	5	4
4	4	4	2	4	7	3	2	4	7	2	4	4	5	5	2	4
5	2	2	4	4	3	4	5	3	2	5	5	5	5	4	5	6
6	4	6	5	3	2	5	5	4	3	4	4	6	4	4	5	4
7	6	5	4	4	4	4	5	5	4	6	6	5	4	4	4	7
8	4	5	4	2	1	4	6	4	3	6	4	4	4	3	7	4
9	4	6	6	2	2	2	6	6	6	7	2	5	7	6	6	6
10	6	6	5	5	2	2	6	7	5	7	5	6	6	6	6	7
11	6	6	5	4	4	4	5	5	3	5	6	4	7	5	4	5
12	4	5	7	3	3	6	7	2	3	6	6	4	7	4	6	6
13	5	7	4	4	4	5	6	4	2	7	5	4	5	4	5	6
14	6	7	3	3	4	5	7	6	3	7	6	4	1	4	5	6
15	5	6	4	1	5	4	7	6	2	7	6	5	7	2	7	1
16	6	7	4	4	4	6	7	2	2	7	4	3	6	3	6	7
17	7	7	3	5	5	3	7	5	3	7	6	3	6	3	6	7
18	5	7	2	5	2	6	7	4	2	7	6	2	6	2	6	6
19	4	6	5	3	5	4	6	5	3	6	6	4	7	4	3	6
20	6	7	4	4	5	4	5	4	3	5	4	3	6	4	7	4
21	4	7	3	3	3	4	5	5	5	7	5	4	6	4	5	6
22	4	6	4	5	3	5	7	4	2	6	6	3	7	4	6	6
23	6	7	4	3	4	4	5	5	3	7	5	3	4	4	5	4
24	4	4	5	3	3	3	5	7	4	5	4	4	5	5	5	5
25	4	4	3	3	3	3	5	3	5	5	4	3	6	3	6	5
26	4	6	2	1	5	4	6	3	2	7	6	3	7	5	6	5
27	3	6	5	2	2	5	5	5	4	5	5	4	7	1	7	5
28	2	5	4	4	4	3	5	5	5	4	4	6	7	4	5	5
29	4	5	4	2	2	4	5	4	3	5	5	4	5	5	6	6
30	3	6	4	5	5	2	5	6	4	3	5	1	7	4	2	4
31	1	4	3	6	6	4	6	4	4	6	6	3	5	3	5	6
32	3	6	4	3	3	5	5	3	3	7	4	6	7	4	7	6
33	4	7	7	1	7	3	4	6	6	7	5	6	6	4	6	4
34	3	5	4	2	5	6	6	2	3	6	5	3	4	4	4	5
35	6	5	2	5	5	4	5	5	5	6	3	3	7	4	4	5
36	5	5	5	5	6	6	7	5	2	7	5	3	7	4	6	6
37	6	6	3	6	6	7	7	3	1	7	6	2	7	3	7	7
38	6	5	3	2	6	6	7	4	4	7	6	4	7	4	6	6
39	6	6	4	1	7	5	5	7	3	6	6	2	7	2	5	6
40	4	6	5	2	2	3	5	5	5	5	5	5	2	6	2	3
41	4	6	5	1	3	5	5	5	6	5	3	5	6	4	5	4
42	6	3	5	3	3	4	6	4	3	5	4	5	7	4	5	6
43	5	4	3	2	2	4	6	6	6	5	4	4	4	5	4	6
44	4	3	6	3	3	4	4	4	4	5	4	4	4	6	6	6
45	6	6	4	3	3	4	6	4	4	5	4	4	4	7	6	6

Continued

WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
46	5	6	2	2	4	4	6	4	3	6	5	4	6	2	7
47	3	2	5	4	4	4	6	5	4	6	3	7	6	7	6
48	6	6	2	5	6	6	5	6	2	5	6	7	5	7	7
49	2	5	3	5	4	5	5	3	6	6	4	4	2	1	7
50	6	6	4	6	6	6	6	6	5	6	4	7	7	4	7
51	7	4	2	6	6	4	4	3	5	4	5	6	6	4	5
52	5	5	4	3	4	5	5	4	4	4	5	5	4	4	4
53	3	5	5	4	3	3	6	5	5	3	4	6	5	3	4
54	3	5	4	3	4	4	5	4	4	5	5	7	5	6	3
55	5	6	4	4	5	5	5	5	4	6	4	4	3	7	4
56	5	6	4	4	6	7	7	4	6	6	5	2	4	3	5
57	6	6	3	4	4	3	4	4	4	6	4	4	4	5	5
58	4	7	4	6	2	5	3	7	4	4	5	7	4	5	5
59	5	7	4	1	5	4	5	4	5	5	4	7	4	5	5
60	6	6	4	4	4	7	4	1	4	6	7	4	2	1	7
61	5	4	4	2	7	7	3	5	4	5	4	4	3	6	5
62	4	6	4	4	4	4	4	4	4	4	4	4	4	4	4
63	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
64	6	5	4	4	5	5	5	3	5	5	4	4	4	3	5
65	3	4	5	2	2	4	4	5	6	3	4	6	4	4	6
66	4	5	4	2	4	6	6	4	4	6	4	4	4	4	7
67	7	7	4	1	7	7	6	1	4	7	7	6	2	6	6
68	5	4	3	3	3	3	5	3	3	6	4	4	4	4	6
69	4	5	4	2	6	4	6	4	2	6	2	4	3	2	6
70	7	6	3	2	2	4	5	2	6	7	2	4	1	7	5
71	6	7	1	1	4	7	7	2	7	4	2	2	4	3	6
72	4	6	4	3	4	5	5	4	5	4	6	4	4	4	7
73	4	7	4	1	3	5	6	2	5	6	5	4	4	3	5
74	6	7	4	2	5	6	7	1	7	7	6	4	4	4	7
75	7	7	4	3	3	7	7	2	7	6	6	7	1	5	7
76	5	6	1	2	6	3	7	4	7	5	4	2	4	4	7
77	2	6	4	2	3	7	7	4	5	1	4	7	2	5	4
78	1	1	5	3	1	4	5	7	7	6	7	7	7	2	6
79	6	6	2	1	4	4	7	4	7	5	4	4	4	4	4
80	4	6	4	4	4	2	7	4	4	6	5	6	4	3	5
81	3	7	4	5	4	6	6	5	5	6	1	6	5	6	7
82	5	5	4	1	4	4	6	4	5	6	4	6	4	4	6
83	4	5	2	4	4	6	7	2	2	5	4	7	4	5	6
84	6	6	4	2	4	4	6	2	2	6	3	3	4	5	4
85	4	7	4	5	4	5	5	3	3	6	4	1	4	4	6
86	6	6	4	5	7	7	6	2	4	6	2	2	4	6	6
87	4	6	4	3	5	6	6	3	4	6	4	7	4	6	4
88	5	7	4	2	6	6	6	2	4	6	5	6	4	5	6
89	5	7	4	4	6	6	6	2	6	6	5	4	3	6	5
90	4	5	4	4	6	6	6	2	6	5	5	6	4	6	6
91	5	5	3	3	6	7	7	3	3	5	4	4	4	6	4
92	4	6	4	2	4	6	7	2	3	6	4	7	7	6	6
93	4	5	2	2	4	4	7	4	2	4	5	4	3	6	6
94	3	6	4	5	5	5	4	5	6	6	6	7	4	6	7

Continued

WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
95	4	3	4	5	5	5	6	6	5	3	5	6	6	4	6
96	2	3	6	6	1	3	7	7	5	1	7	7	7	4	4
97	6	6	1	2	6	5	4	1	6	4	4	6	4	4	4
98	4	6	4	2	4	5	4	1	6	6	4	7	4	6	4
99	6	6	2	6	2	6	5	3	6	6	3	6	3	6	6
100	5	7	3	2	5	7	6	5	6	6	5	1	3	3	6
101	6	7	4	2	4	5	4	4	6	6	5	4	4	2	4
102	6	7	4	3	3	7	1	1	7	7	1	4	6	5	6
103	6	6	4	6	4	5	5	3	6	5	4	7	5	7	6
104	4	4	5	2	3	4	6	5	5	4	6	6	4	5	6
105	5	6	5	2	6	6	4	5	6	4	4	7	6	5	6
106	6	7	4	2	4	6	5	4	7	7	3	5	4	5	7
107	6	4	3	2	6	6	4	2	5	4	4	6	4	6	5
108	4	6	2	1	7	7	4	1	7	5	5	7	5	7	7
109	6	7	2	1	5	5	3	4	7	6	4	7	4	7	7
110	4	7	3	1	4	7	4	4	5	4	4	4	4	4	7
111	4	7	3	3	4	5	3	2	5	7	2	1	4	6	6
112	4	6	5	4	4	5	3	5	6	5	5	7	4	6	6

## SCORES FOR PERCEPTION OF "WOMAN COACH" BY WOMEN ATHLETES

Sub- ject	Scales															
	WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
1	4	6	4	2	4	4	5	4	6	6	3	6	4	5	5	
2	6	7	4	2	5	7	4	2	7	6	6	7	4	6	6	
3	4	5	4	2	4	6	4	4	5	5	5	7	4	7	4	
4	4	5	4	2	4	6	4	3	6	6	4	5	4	5	4	
5	4	7	2	1	2	7	7	4	7	7	7	5	2	3	5	6
6	5	6	4	3	4	7	5	3	6	6	5	4	6	4	6	5
7	4	6	3	4	4	6	4	3	4	7	6	4	1	4	6	5
8	5	6	4	1	4	7	7	4	3	7	5	4	4	4	7	4
9	4	6	2	6	6	6	6	3	1	7	5	6	7	1	7	7
10	4	6	2	6	6	6	6	7	2	7	6	2	7	2	7	7
11	7	6	2	6	6	6	6	5	5	5	7	4	4	5	6	4
12	4	6	5	4	4	6	7	3	2	6	6	4	4	4	4	7
13	6	6	4	4	4	6	7	4	3	6	7	2	4	4	4	5
14	5	7	3	4	4	5	7	4	2	7	5	5	1	3	5	7
15	7	7	4	3	3	5	7	6	3	7	7	3	7	5	7	6
16	5	7	4	2	4	4	6	6	7	7	5	4	2	3	2	6
17	7	6	3	4	4	4	5	6	7	7	5	4	7	2	7	6
18	7	7	2	6	6	7	7	2	2	7	6	2	7	2	7	6
19	5	7	4	1	4	4	7	4	4	7	5	3	6	5	6	6
20	6	7	2	5	5	6	7	1	1	7	6	2	1	3	6	7
21	4	7	5	5	4	4	7	3	5	7	6	4	7	4	7	4
22	4	5	4	4	4	4	5	4	4	6	5	4	4	4	5	7
23	7	5	2	7	7	2	5	1	1	7	7	2	4	4	7	7
24	5	6	6	3	4	4	4	7	4	5	4	4	4	5	4	5
25	4	4	3	3	4	4	5	5	5	5	4	4	5	5	5	5
26	3	5	2	2	4	4	7	4	3	6	5	4	6	4	6	6
27	3	4	4	3	4	4	5	3	3	5	5	3	6	1	7	6
28	4	6	1	4	5	6	5	7	4	7	6	4	4	4	5	6
29	4	5	4	3	4	4	5	4	4	5	4	7	7	5	6	7
30	4	6	4	3	2	6	4	7	2	6	4	4	7	4	7	4
31	3	6	6	1	2	4	4	4	6	6	4	4	2	5	7	5
32	4	5	3	6	6	4	5	6	5	5	7	4	4	5	5	1
33	2	4	6	7	3	4	1	7	6	7	2	7	6	2	6	5
34	2	5	4	2	4	6	6	6	6	6	4	6	4	5	5	6
35	6	7	4	2	6	7	7	2	1	7	5	4	6	4	5	4
36	5	5	4	3	4	5	5	5	3	6	7	3	3	3	5	6
37	6	7	4	2	6	6	7	6	2	7	7	5	7	3	7	7
38	6	7	5	5	6	6	7	6	1	7	7	4	7	4	6	6
39	6	7	4	6	6	6	7	4	4	7	6	4	7	2	6	6
40	6	6	2	6	6	6	7	7	2	6	3	7	7	5	2	4
41	4	6	5	2	3	6	6	5	5	6	6	6	5	4	3	3
42	5	4	3	5	4	4	3	5	6	5	4	4	4	4	4	4
43	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
44	5	4	4	5	3	4	6	6	6	6	4	5	6	5	2	6
45	4	6	4	5	3	3	7	5	5	5	4	4	7	4	6	6



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WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
46	4	5	2	1	4	7	3	4	6	5	4	6	2	6	6
47	5	4	4	1	4	5	4	4	6	4	4	7	4	6	7
48	3	5	2	5	2	6	4	3	5	6	6	6	3	3	5
49	6	7	4	3	2	4	6	6	1	4	6	7	4	6	5
50	1	4	4	1	4	5	6	6	4	5	6	4	5	4	7
51	4	6	6	6	2	4	6	6	4	4	4	4	6	4	4
52	4	5	4	4	3	4	5	6	4	4	6	6	4	5	4
53	3	5	4	5	3	4	5	5	5	4	4	6	5	4	4
54	4	5	4	6	2	5	3	6	2	3	2	5	7	2	2
55	5	5	4	3	2	4	5	3	6	4	5	4	4	5	4
56	5	3	4	5	4	6	5	5	6	6	4	3	4	4	5
57	4	4	1	7	4	6	3	4	7	6	5	4	2	4	4
58	4	5	4	5	5	6	6	2	6	5	4	6	4	6	4
59	6	6	4	4	5	5	4	4	6	4	4	6	4	6	5
60	5	5	4	3	5	6	3	2	3	6	1	7	2	1	5
61	4	4	4	1	5	6	5	4	5	3	4	6	4	6	4
62	4	7	3	1	5	6	5	4	5	3	4	4	4	4	5
63	4	4	4	4	4	4	4	2	6	6	4	4	4	4	4
64	6	6	4	2	4	6	4	2	6	4	5	5	4	4	4
65	4	5	4	3	4	5	6	5	7	4	4	3	4	4	7
66	4	4	4	1	4	5	4	4	7	7	1	5	4	1	4
67	5	7	4	1	7	7	1	3	7	7	1	4	4	6	6
68	4	2	2	2	4	4	6	6	6	3	5	4	3	4	4
69	4	2	4	3	4	5	2	3	6	5	4	4	5	2	6
70	5	7	7	1	4	4	6	3	7	4	6	7	1	7	4
71	6	7	2	1	4	7	5	2	6	5	5	4	4	5	4
72	4	6	4	1	4	6	4	4	4	6	5	7	4	7	7
73	4	7	4	1	4	7	4	4	7	6	5	4	3	4	4
74	5	6	4	1	5	6	4	2	7	6	6	4	6	4	4
75	7	7	3	3	7	7	3	1	7	6	6	4	5	5	4
76	4	5	1	3	4	7	1	1	7	6	5	3	4	7	6
77	3	6	4	1	4	7	4	4	7	7	4	5	1	6	4
78	6	7	1	1	5	7	4	3	7	6	4	3	4	4	4
79	6	7	3	1	4	4	2	3	7	4	6	4	7	4	3
80	4	7	4	4	4	6	4	4	7	5	4	4	2	1	7
81	4	5	4	3	4	7	3	3	7	7	4	1	4	2	7
82	6	6	2	1	6	6	2	3	7	5	4	6	7	4	4
83	4	6	4	6	5	6	4	2	7	6	4	4	4	4	6
84	6	4	3	4	4	7	3	2	6	6	2	2	2	6	4
85	4	7	1	5	4	6	2	2	6	5	3	4	4	4	4
86	6	4	4	4	6	7	4	2	6	6	2	4	4	6	4
87	4	6	4	2	5	7	2	3	6	6	4	4	4	4	4
88	5	4	4	4	6	6	4	3	7	6	5	4	4	4	6
89	2	4	4	3	2	6	5	5	6	6	4	6	4	4	4
90	4	6	4	3	4	6	4	2	6	6	4	6	3	6	6
91	5	5	3	3	6	7	4	3	6	4	4	4	4	5	6
92	4	7	4	2	4	6	4	3	6	4	4	4	4	7	6
93	5	6	4	2	4	6	6	2	6	4	4	4	4	2	6
94	2	4	5	5	1	5	7	7	4	2	6	5	6	6	6

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WA	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
95	2	3	6	6	4	5	6	5	4	4	3	6	6	2	3
96	2	2	4	6	1	2	7	7	5	2	6	7	7	4	4
97	6	5	2	4	6	4	4	1	4	4	4	4	4	5	4
98	4	7	4	1	4	7	4	2	7	7	4	7	4	7	5
99	1	7	3	5	1	6	6	5	7	5	5	6	4	1	7
100	4	6	4	5	4	6	6	2	7	6	5	6	3	6	6
101	4	6	4	6	4	6	7	3	6	5	4	6	4	6	3
102	4	7	3	1	4	5	4	2	7	6	6	4	4	6	6
103	4	1	7	1	4	6	3	4	7	6	6	7	7	1	7
104	3	7	5	1	3	6	5	6	7	6	6	4	4	4	6
105	5	6	4	5	5	5	3	4	6	6	4	6	5	4	6
106	7	7	1	4	4	7	4	3	7	7	1	4	3	6	7
107	7	7	3	1	4	7	4	4	6	6	5	4	3	6	6
108	4	6	3	1	3	7	6	5	7	5	5	7	3	7	7
109	6	7	3	1	5	6	4	2	7	7	3	6	3	7	6
110	7	7	4	1	4	7	4	4	7	5	4	4	4	5	4
111	5	6	2	5	6	6	4	3	7	4	3	7	4	5	6
112	4	7	4	1	5	7	3	2	7	7	3	3	4	5	5

## SCORES FOR PERCEPTION OF "WOMAN ATHLETE" BY WOMEN COACHES

Sub- ject	Scales															
	WC	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
1'	5	2	5	5	3	6	4	5	3	4	5	4	5	5	2	3
2'	3	4	4	3	3	4	5	3	5	2	4	4	5	3	2	4
3'	5	5	5	3	2	5	5	5	4	6	5	4	5	3	5	6
4'	5	7	7	1	6	7	5	3	1	7	5	2	6	2	7	6
5'	4	4	5	3	5	4	4	4	4	5	4	4	3	4	3	5
6'	4	4	4	3	5	4	4	5	4	4	3	4	6	4	5	5
7'	4	4	4	3	5	4	4	5	4	4	3	4	4	4	5	5
8'	6	6	4	4	3	6	6	3	2	7	6	4	6	3	6	5
9'	4	7	3	3	5	3	6	6	3	4	7	4	6	3	6	3
10'	4	4	3	3	2	4	6	6	5	4	7	4	6	3	6	3
11'	5	6	4	4	5	5	6	6	4	5	6	5	7	3	2	6
12'	5	5	5	4	5	5	5	5	2	6	5	2	2	2	4	6
13'	6	7	2	2	1	6	7	2	2	7	6	1	6	3	6	7
14'	6	6	6	4	5	5	5	4	3	6	6	4	7	4	6	7
15'	7	7	7	4	2	7	7	4	1	7	6	2	7	4	6	6
16'	5	5	3	3	6	5	5	3	5	5	5	3	6	4	5	6
17'	5	5	3	3	3	4	6	3	5	6	4	3	3	3	5	5
18'	4	5	2	3	3	5	6	4	2	5	5	4	4	3	3	5
19'	6	6	6	3	3	6	7	4	2	6	6	2	4	2	6	6
20'	6	6	6	4	2	5	6	3	3	6	5	4	4	4	4	5
21'	3	5	5	5	5	5	5	5	4	7	6	2	7	2	6	4
22'	6	5	4	4	2	6	5	5	6	4	5	4	3	4	4	6
23'	4	5	4	4	4	4	5	3	3	5	5	4	4	4	5	7
24'	5	4	4	4	2	5	6	5	4	6	6	4	7	5	4	6
25'	4	6	5	5	2	4	6	5	5	5	5	5	4	5	5	6
26'	4	6	5	5	5	4	7	5	5	6	5	2	7	2	7	6
27'	6	7	3	3	2	6	7	2	2	6	6	4	7	4	6	4
28'	4	4	4	4	2	4	4	7	4	4	4	4	7	4	3	5
29'	4	5	3	3	3	4	4	4	3	3	5	4	6	5	5	5
30'	5	2	5	5	4	3	4	5	3	6	6	2	2	4	5	5
31'	6	6	4	4	2	6	7	4	2	6	6	4	4	4	7	7
32'	6	7	4	4	1	6	6	5	4	6	6	5	7	5	2	6
33'	6	7	6	6	6	4	6	3	4	6	4	5	4	3	4	5
34'	7	7	2	4	1	4	7	3	1	7	5	5	4	4	3	5
35'	5	5	4	4	4	4	6	5	4	5	5	4	6	4	5	5
36'	5	6	4	4	3	4	6	3	3	5	5	4	5	4	6	6
37'	5	5	4	4	5	5	5	4	3	6	6	5	7	6	6	7
38'	7	7	5	5	5	6	7	6	3	6	6	3	7	6	3	7
39'	5	2	4	4	2	4	5	5	3	6	6	5	7	5	4	7
40'	5	6	4	4	5	4	5	5	3	6	5	5	7	4	5	7
41'	5	6	4	4	4	5	5	5	5	6	3	5	6	4	7	6
42'	6	7	4	4	2	4	6	6	4	3	7	5	7	3	6	6
43'	5	7	4	4	1	4	5	2	2	6	5	2	4	2	6	7
44'	6	7	3	3	2	5	7	2	2	5	6	1	6	2	3	5
45'	7	6	3	3	1	6	6	2	2	6	4	3	6	4	4	6
46'	6	5	3	3	4	6	6	5	3	6	4	3	6	4	4	5
47'	5	5	4	4	1	4	5	4	2	6	5	4	4	4	6	5
48'	7	7	4	4	4	5	4	4	3	6	3	3	7	4	6	5

## SCORES FOR PERCEPTION OF "WOMAN COACH" BY WOMEN COACHES

Sub- ject	Scales															
	WC	A-U	B-I	T-T	R-T	S-S	N-A	S-L	F-M	U-I	C-A	S-H	C-C	H-L	E-C	S-F
1'	5	5	6	6	2	6	4	4	6	3	3	6	6	5	2	3
2'	3	3	4	4	3	4	5	3	5	3	4	4	4	4	2	4
3'	6	6	2	2	5	6	3	2	6	6	6	5	4	2	4	4
4'	5	5	3	4	4	6	4	4	6	6	6	4	2	4	6	4
5'	4	6	1	7	4	5	4	3	6	6	6	4	5	3	3	5
6'	5	5	2	3	4	4	1	3	6	4	5	5	5	2	3	5
7'	4	4	5	3	3	6	5	4	6	3	6	6	6	5	4	5
8'	6	6	5	3	6	6	3	2	7	6	4	4	4	5	7	6
9'	3	6	6	3	2	4	6	5	6	6	6	4	7	6	2	3
10'	4	5	3	6	4	5	4	3	5	3	5	3	6	4	1	5
11'	5	6	4	5	3	5	5	5	5	6	5	5	7	4	2	5
12'	6	6	3	4	6	6	6	3	2	6	4	3	4	3	4	6
13'	7	7	2	2	6	7	2	1	7	6	6	3	5	7	6	7
14'	6	6	4	5	5	6	4	3	3	6	6	3	7	4	6	4
15'	6	7	4	6	6	6	4	3	1	7	5	3	7	4	5	5
16'	5	5	2	6	5	4	6	3	3	6	6	2	6	3	6	6
17'	4	6	3	5	4	6	7	3	5	6	4	4	3	4	5	4
18'	6	5	3	3	6	5	6	3	2	6	6	4	4	3	4	4
19'	6	6	3	2	5	6	3	3	3	6	6	2	4	2	2	6
20'	5	5	4	3	5	5	5	4	4	6	3	3	7	4	3	3
21'	3	6	5	6	3	3	6	6	6	6	3	5	5	4	3	4
22'	4	4	4	5	6	4	5	5	6	6	3	5	5	4	4	5
23'	5	7	2	2	3	6	6	6	3	6	5	5	4	3	4	5
24'	5	6	4	2	5	5	6	5	2	6	5	5	4	4	5	4
25'	4	6	4	5	4	4	5	5	4	6	5	4	7	4	4	6
26'	2	5	4	6	2	6	6	4	6	3	4	5	6	6	4	7
27'	6	7	2	2	6	6	6	2	2	6	6	5	7	4	7	4
28'	4	4	4	7	4	4	4	7	6	4	4	6	7	6	4	3
29'	3	5	6	6	2	4	4	5	3	4	5	4	6	6	5	4
30'	5	5	4	5	4	3	5	5	5	5	4	4	5	4	5	5
31'	5	6	4	3	5	5	7	4	5	6	4	4	7	4	5	5
32'	6	7	4	6	6	6	7	5	2	7	6	3	1	4	6	4
33'	6	6	3	6	4	4	6	5	4	6	5	4	6	5	2	5
34'	7	7	4	1	4	4	7	2	2	7	5	6	6	4	4	6
35'	3	5	4	4	4	4	6	4	4	5	4	4	5	4	3	3
36'	4	6	4	2	4	4	6	4	2	7	5	4	4	4	5	5
37'	4	5	4	4	4	5	6	4	3	6	4	5	6	4	4	5
38'	7	7	6	5	5	6	7	4	1	7	5	5	7	4	7	7
39'	6	3	2	5	6	7	2	2	2	7	6	2	7	2	1	6
40'	6	7	3	4	4	6	5	5	2	7	5	5	7	4	5	6
41'	4	6	5	4	4	4	6	5	5	6	4	5	6	5	2	6
42'	4	4	4	4	4	4	6	6	4	4	3	5	4	4	2	3
43'	7	3	4	5	6	6	6	1	1	5	5	5	6	4	6	6
44'	6	3	4	2	1	6	7	2	2	6	5	2	4	2	6	6
45'	7	6	4	3	6	6	7	3	1	6	6	2	7	4	4	5
46'	6	6	3	6	6	7	7	3	3	7	4	4	6	3	4	4
47'	5	6	4	1	4	5	4	3	6	5	5	5	4	5	2	2
48'	2	1	6	7	5	5	5	3	5	3	5	6	2	5	2	2